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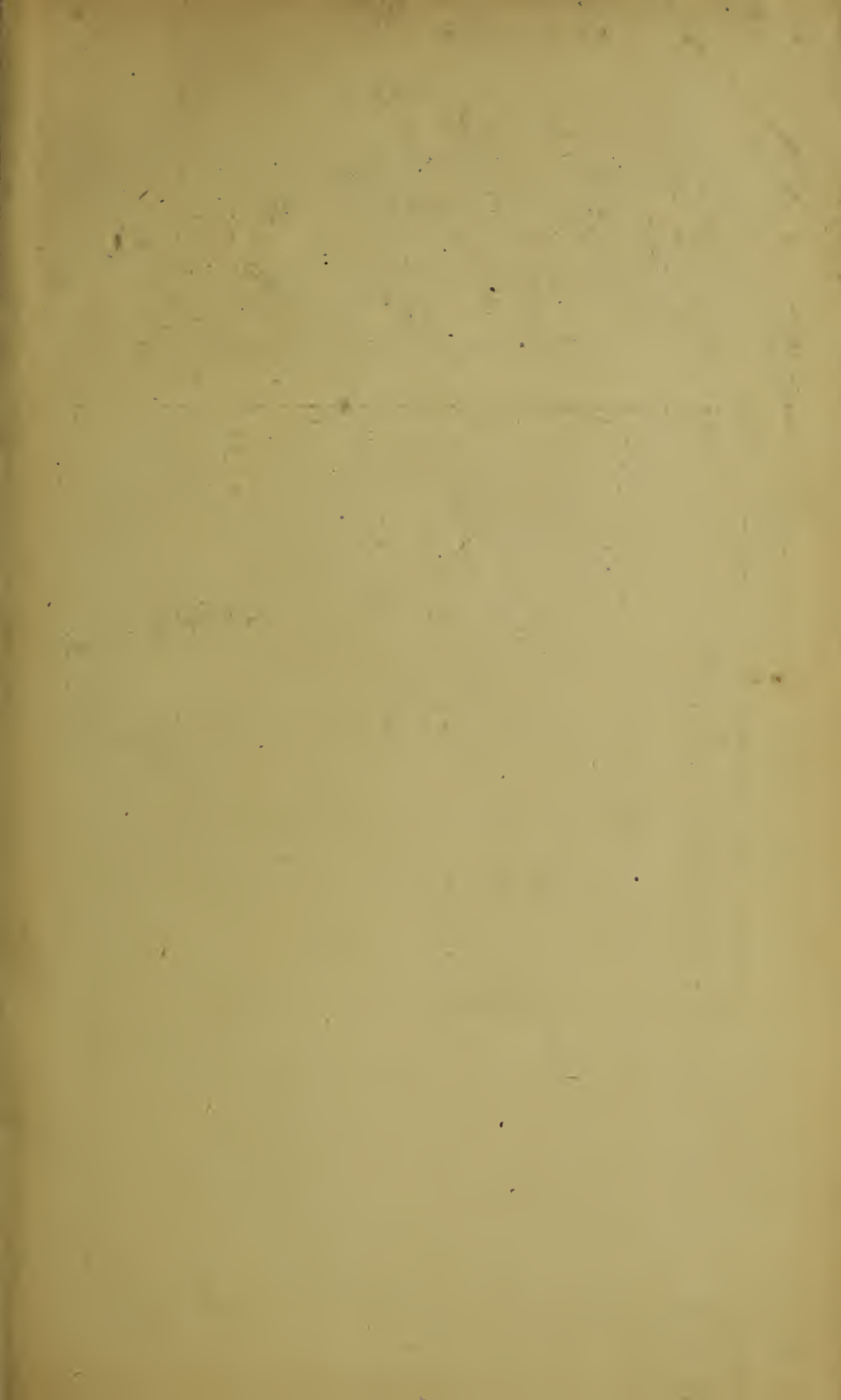
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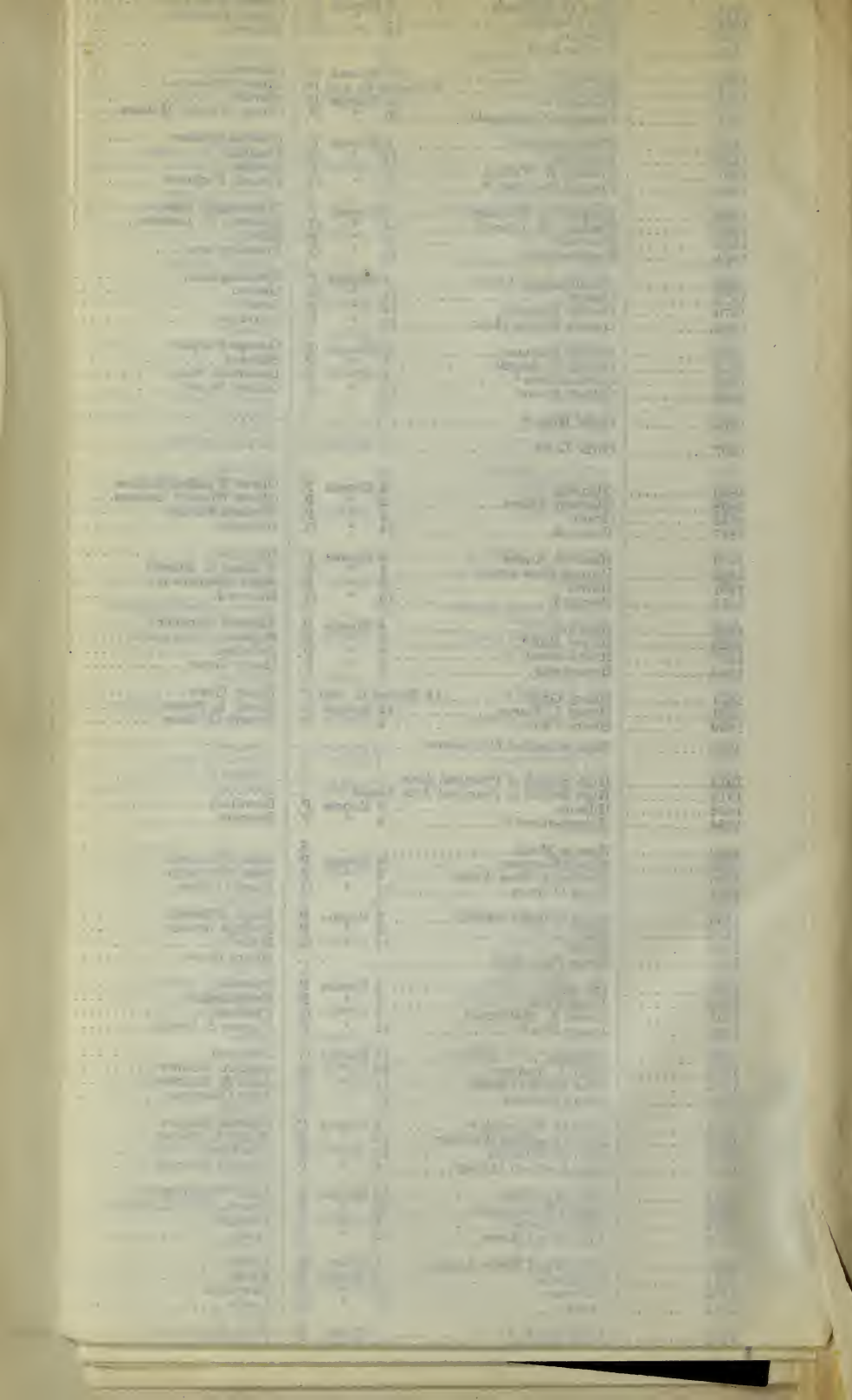
Boston, Schoolhouse Sept.











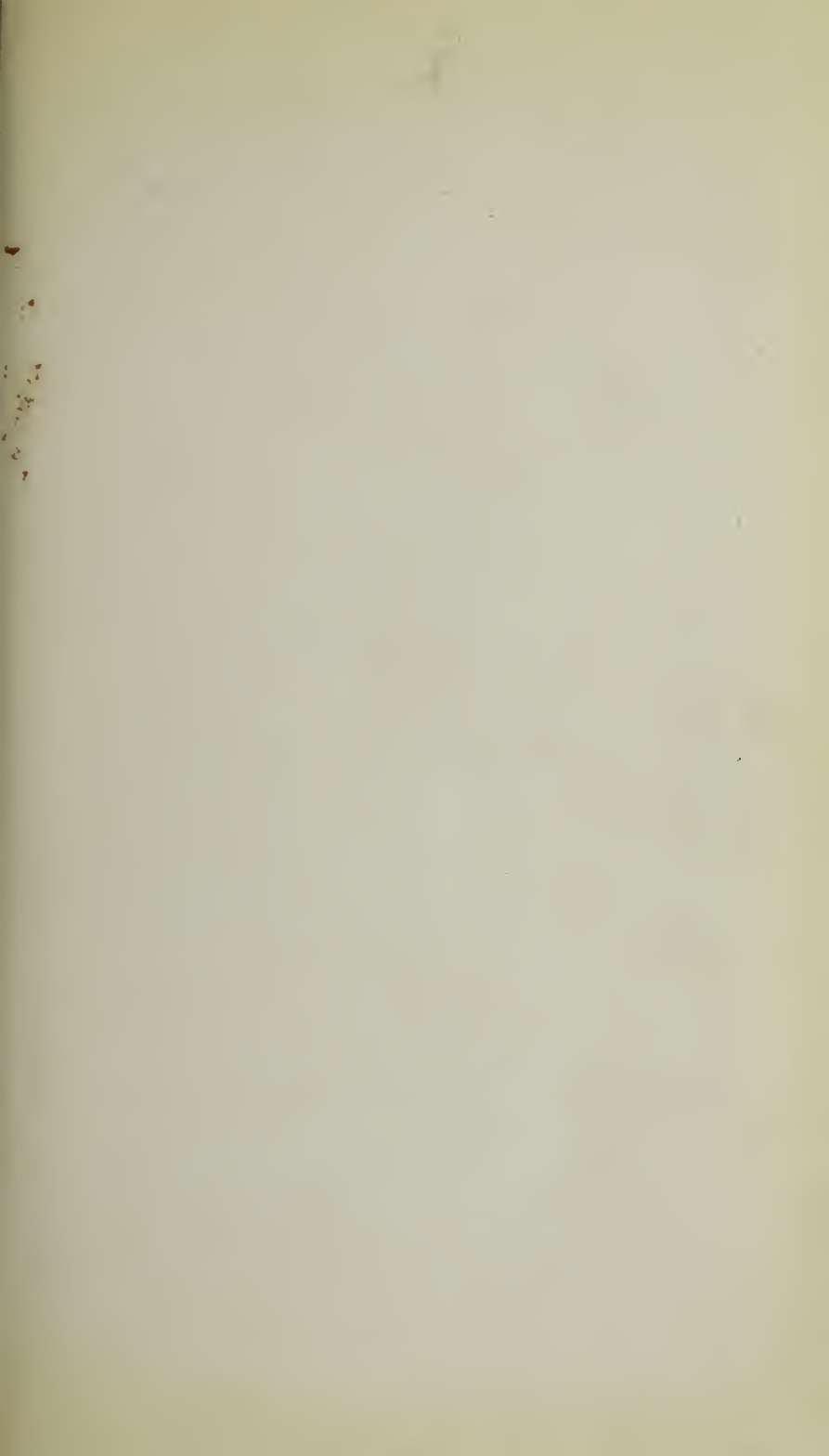
# THE ANNUAL REPORT OF THE SCHOOLHOUSE DEPARTMENT

FROM FEBRUARY 1, 1916, TO  
FEBRUARY 1, 1917



CITY OF BOSTON  
PRINTING DEPARTMENT  
1917







WILLIAM BLACKSTONE SCHOOL.  
H. H. Atwood, Architect.

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1917





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## BUILDINGS IN CHARGE OF SCHOOLHOUSE DEPARTMENT.

Number of Permanent School Buildings . . . . .	267
Of the above there are in use as Storehouses, etc. . . . .	2
Number of Portable Buildings . . . . .	136
Number of Hired Buildings . . . . .	22
Giving Class-rooms to the Number of . . . . .	75
Number of New Buildings Finished by Commission . . . . .	58
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ANNUAL REPORT  
OF THE  
SCHOOLHOUSE DEPARTMENT

FOR THE YEAR ENDING JANUARY 31, 1917.

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HON. JAMES M. CURLEY,  
*Mayor of the City of Boston:*

DEAR SIR,— In accordance with the provisions of chapter 473 of the Acts of 1901, the Board of Schoolhouse Commissioners submits herewith its fifteenth annual report, covering the period from February 1, 1916, to February 1, 1917.

I.  
GENERAL STATEMENT.

The Board regrets that there has been a delay in the completion of the Boston Trade School.

The shop portion of the building collapsed March 25, 1916. This collapse was due, in part, to the most severe winter in the last forty years, and to misjudgment on the part of the contractor. The rebuilding is now nearly completed and the Board expects to have it completed and occupied June 1, 1917.

Owing to the efforts of your Honor a bill was enacted in the Senate and House of Representatives, chapter 267, Special Acts 1916.

This act does away with the Bond Issue. The appropriation for the erection of school buildings and the

appropriation for repairs on school buildings are to be taken out of the Tax Levy. The Board has been proceeding under this act during the past year.

## II.

### WORK EXECUTED UNDER THE APPROPRIATION FOR LAND AND BUILDINGS FOR SCHOOLS.

#### (1.) REPORT OF PROGRESS ON BUILDINGS DESCRIBED LAST YEAR AND ON NEW WORK UNDERTAKEN SINCE THEN.

Of the School Committee's list (Tax Levy), 1914-15, the Board reports as follows:

*Item 1.—Wells District*, West End, elementary school, upper grades.

	Original Contract.	Contract To Date.
General contract (all trades)	<u>\$173,496 00</u>	<u>\$167,231 49</u>

*Item 3.—Oliver Wendell Holmes District*, sixteen-room elementary school, lower grades, land and building. The Board has taken the land for this building, and now awaits action by the School Committee. See 1915-16.

This completes the Tax Levy list for 1914-15.

Of the School Committee's list (Bond Issue), 1915-16, the Board reports as follows:

*Item 1.—Henry Grew District*, Hyde Park High School, addition to building.

	Original Contract.	Contract To Date.
General contract (all trades)	<u>\$89,990 00</u>	<u>\$109,152 90</u>

*Item 2.—Comins-Sherwin Districts*, Roxbury, Boston Industrial School for Boys, completion of building. This building is expected to be completed May 16, 1917.

	Original Contract.	Contract To Date.
General contract (all trades)	<u>\$272,000 00</u>	<u>\$280,013 54</u>

*Item 3.—Henry L. Pierce-Mary Hemenway Districts*, Dorchester, elementary school, upper and lower grades, land and building.

	Original Contract.	Contract To Date.
General contract (all trades)	<u>\$137,400 00</u>	<u>\$137,400 00</u>

*Item 4.*—Reported last year.

*Item 5.*—*Abraham Lincoln District*, School Administration Building. Plans were made and it was intended to build on the site of the Old Probate Building, 30 Tremont street. Owing to an advantageous offer received by his Honor the Mayor, the site was sold. We now await action by the School Committee in regard to the taking of a site.

### On the Tax Levy list:

*Item 1.*—*Dearborn District*, Roxbury, High School of Practical Arts, addition to building. This building is expected to be completed July 15, 1917.

	Original Contract.	Contract To Date.
General contract (all trades) .	<u>\$56,676 00</u>	<u>\$60,018 88</u>

Items 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 and 16 reported on last year.

*Item 17.* See further report, 1915-16.

This completes the Tax Levy list, 1915-16.

On May 1, 1916, the School Committee, under the provisions of chapter 267 of the Special Acts of 1916, appropriated the sum of \$922,812 for the purpose of constructing and furnishing new school buildings, including the taking of land therefor and for school yards and the preparing of school yards for use.

### *Administration Expenses, Schoolhouse Department.*

*Item 1.*—Administration expenses, Schoolhouse Department.

### *Additional Provision to Meet Cost of Accommodations Previously Authorized.*

*Item 2.*—*Wells District*, West End, completion of building under construction on Blossom street.

*Item 3.*—*Comins-Sherwin Districts*, Roxbury, Boston Industrial School for Boys, completion of building under construction.

*Item 4.*—*Dearborn District*, Roxbury, High School of Practical Arts, completion of addition under construction.

*Item 5.*—*Henry Grew District*, Hyde Park, Hyde Park High School, completion of addition authorized in 1915.

*Item 6.*—*Eliot-Hancock Districts*, North End, proposed elementary school, lower grades and special class rooms, Charter street, additional provision for the completion of payment for land and plans.

*Item 7.*—*Henry L. Pierce-Mary Hemenway Districts*, Dorchester, elementary school, upper and lower grades, additional provision for erection of sixteen-room building authorized in 1915.



*Enlargement of Buildings Previously Authorized.*

*Item 8.*— Oliver Wendell Holmes District, Dorchester, elementary school, upper and lower grades, Glenway and Harvard streets, eight-room addition to sixteen-room building authorized in 1915.

*Item 9.*— Robert G. Shaw District, West Roxbury, elementary school, lower grades, Mt. Vernon street, eight-room addition to eight-room building authorized in 1915.

*Additional Accommodations.*

*Item 10.*— Henry L. Pierce District, Dorchester, elementary school, upper grades, sixteen-room building and land therefor, said land and building being in addition to the sixteen-room building and land therefor authorized in 1915, and for which additional provision is made under Item 7.

*Item 11.*— Ulysses S. Grant District, East Boston, James Otis Schoolhouse, six-room addition.

*Item 12.*— Roger Wolcott District, Dorchester, elementary school, upper grades, eight-room building and land therefor.

*Item 13.*— George Putnam District, Roxbury, William Lloyd Garrison Schoolhouse, eight-room addition.

*Enlargement and Preparation of School Yards.*

*Item 14.*— Wells District, West End, Winchell School, enlargement and preparation of school yard.

*Item 15.*— Wendell Phillips District, West End, Wendell Phillips School, enlargement of school yard, including grading and paving.

*Item 16.*— Charles Sumner District, Roslindale, John D. Philbrick School, grading of yard and construction of retaining wall.

*Additional Portable Buildings.*

*Item 17.*— Fifteen additional portable schoolhouses.

Thereupon the Board notified the School Committee that it intended to expend this appropriation from the Tax Levy for the following items, this being done after consultation with the Superintendent of Schools:

*Administration Expenses, Schoolhouse Department.*

*Item 1.*— Administration expenses, Schoolhouse Department . . . . . \$44,000 00

*Additional Provision to Meet Cost of Accommodations Previously Authorized.*

*Item 2.*— Wells District, West End, completion of building under construction on Blossom street, 35,000 00

*Carried forward* . . . . . \$79,000 00

<i>Brought forward</i>	\$79,000 00
<i>Item 3.</i> —Comins-Sherwin Districts, Roxbury, Boston Industrial School for Boys, completion of building under construction	59,350 04
<i>Item 4.</i> —Dearborn District, Roxbury, High School of Practical Arts, completion of addition under construction	21,128 00
<i>Item 5.</i> —Henry Grew District, Hyde Park, Hyde Park High School, completion of addition authorized in 1915	27,412 00
<i>Item 6.</i> —Eliot-Hancock Districts, North End, proposed elementary school, lower grades and special class rooms, Charter street, additional provision for the completion of payment for land and plans	19,321 96
<i>Item 7.</i> —Henry L. Pierce-Mary Hemenway Districts, Dorchester, elementary school, upper and lower grades, additional provision for erection of sixteen-room building authorized in 1915	16,700 00

*Enlargement of Buildings Previously Authorized.*

<i>Item 8.</i> —Oliver Wendell Holmes District, Dorchester, elementary school, upper and lower grades, Glenway and Harvard streets, eight-room addition to sixteen-room building authorized in 1915	146,000 00
<i>Item 9.</i> —Robert G. Shaw District, West Roxbury, elementary school, lower grades, Mt. Vernon street, eight-room addition to eight-room building authorized in 1915	111,000 00

*Additional Accommodations.*

<i>Item 10.</i> —Henry L. Pierce District, Dorchester, elementary school, upper grades, sixteen-room building and land therefor, said land and building being in addition to the sixteen-room building and land therefor authorized in 1915, and for which additional provision is made under Item 7	168,600 00
<i>Item 11.</i> —Ulysses S. Grant District, East Boston, James Otis Schoolhouse, six-room addition	56,800 00
<i>Item 12.</i> —Roger Wolcott District, Dorchester, elementary school, upper grades, eight-room building and land therefor	89,000 00
<i>Item 13.</i> —George Putnam District, Roxbury, William Lloyd Garrison Schoolhouse, eight-room addition	81,000 00

*Carried forward* . . . . . \$875,312 00

<i>Brought forward</i> . . . . .	\$875,312 00
<i>Enlargement and Preparation of School Yards.</i>	
<i>Item 14.</i> — Wells District, West End, Winchell School, enlargement and preparation of school yard . . . . .	1,500 00
<i>Item 15.</i> — Wendell Phillips District, West End, Wendell Phillips School, enlargement of school yard, including grading and paving . . . . .	3,000 00
<i>Item 16.</i> — Charles Sumner District, Roslindale, John D. Philbrick School, grading of yard and construction of retaining wall . . . . .	5,000 00
<i>Additional Portable Buildings.</i>	
<i>Item 17.</i> — Fifteen additional portable school-houses . . . . .	38,000 00
	<u>\$922,812 00</u>

In connection with the foregoing list the following is a report of progress made so far:

*Item 2.*— Wells District, West End, elementary school, upper grades. This building was completed March 28, 1916.

	Original Contract.	Contract To Date.
General contract (all trades) . . . . .	<u>\$173,496 00</u>	<u>\$170,482 94</u>

*Item 3.*— Comins-Sherwin Districts, Roxbury, Boston Industrial School for Boys, completion of building. This building is expected to be completed May 16, 1917.

	Original Contract.	Contract To Date.
General contract (all trades) . . . . .	<u>\$272,000 00</u>	<u>\$284,757 54</u>

*Item 4.*— Dearborn District, Roxbury, High School of Practical Arts, completion of addition to building. This building is expected to be completed July 17, 1917.

	Original Contract.	Contract To Date.
General contract (all trades) . . . . .	<u>\$56,676 00</u>	<u>\$60,725 03</u>

*Item 5.*— Henry Grew District, Hyde Park High School, completion of addition to building. This building is expected to be completed January 1, 1918.

	Original Contract.	Contract To Date.
General contract (all trades) . . . . .	<u>\$89,990 00</u>	<u>\$109,152 90</u>



*Item 6.—Eliot-Hancock Districts, North End, elementary school, lower grades and special class-rooms, land and plans.*

*Item 7.—Henry L. Pierce-Mary Hemenway Districts, Dorchester, elementary school, upper and lower grades. The contract for this building was let September 15, 1916.*

	Original Contract.	Contract To Date.
General contract (all trades) . . .	<u>\$137,400 00</u>	<u>\$137,737 39</u>

*Item 8.—Oliver Wendell Holmes District, Dorchester, elementary school, upper and lower grades. The plans are now practically completed for this building.*

*Item 9.—Robert G. Shaw District, West Roxbury, elementary school, lower grades, building. The contract for this building was let November 29, 1916.*

	Original Contract.	Contract To Date.
General contract (all trades) . . .	<u>\$174,000 00</u>	<u>\$174,642 50</u>

*Item 10.—Henry L. Pierce District, Dorchester, elementary school, upper grades. The contract for this building was let December 11, 1916.*

	Original Contract.	Contract To Date.
General contract (all trades) . . .	<u>\$161,227 00</u>	<u>\$161,227 00</u>

*Item 11.—Ulysses S. Grant District, East Boston, James Otis Schoolhouse, six-room addition. The contract for this building was let July 14, 1916.*

	Original Contract.	Contract To Date.
General contract (all trades) . . .	<u>\$47,447 00</u>	<u>\$48,518 06</u>

*Item 12.—Roger Wolcott District, Dorchester, elementary school, upper grades. The contract for this building was let February 17, 1917.*

	Original Contract.	Contract To Date.
General contract (all trades) . . .	<u>\$99,680 00</u>	<u>\$99,680 00</u>

*Item 13.—George Putnam District, Roxbury, William Lloyd Garrison Schoolhouse, eight-room addition. The plans for this building are practically completed.*

*Item 14.—Wells District, West End, Winchell school, enlargement of school yard. The land has been taken for this enlargement.*

*Item 15.—Wendell Phillips District, West End, Wendell Phillips School, enlargement of yard and grading and paving. This work was completed January 22, 1917.*

	Original Contract.	Contract To Date.
General contract (all trades) . . .	<u>\$2,167 00</u>	<u>\$2,318 50</u>

*Item 16.— Charles Sumner District, Roslindale, John D. Philbrick School, grading of yard and construction of retaining wall. This work was completed January 22, 1917.*

	Original Contract.	Completed Contract.
General contract (all trades)	<u>\$5,748 27</u>	<u>\$5,271 19</u>

*Item 17.— Building Fifteen Portable Schoolhouses in various districts. These buildings have been completed and accepted.*

	Original Contract.	Completed Contract.
General contract (all trades)	<u>\$26,570 00</u>	<u>\$26,946 00</u>

### (2.) FUTURE ACCOMMODATIONS.

The high school situation in Boston is rapidly approaching an acute stage. This applies particularly to the Dorchester, South Boston and West Roxbury High Schools. The construction of a building for the Boston Latin School will relieve the English High School. It will be but a short time before the relief afforded by the establishment of the junior high schools will be apparent, though even with this relief there must be new high schools built in Boston in the near future.

The situation is acute in the Henry L. Pierce, Mary Hemenway, Oliver Wendell Holmes, George Putnam, Roger Wolcott, Samuel Adams, Theodore Lyman, John Cheverus, Ulysses S. Grant and Dearborn Districts.

Relief is expected this year in the Henry L. Pierce, Mary Hemenway, Oliver Wendell Holmes, Roger Wolcott and George Putnam Districts.

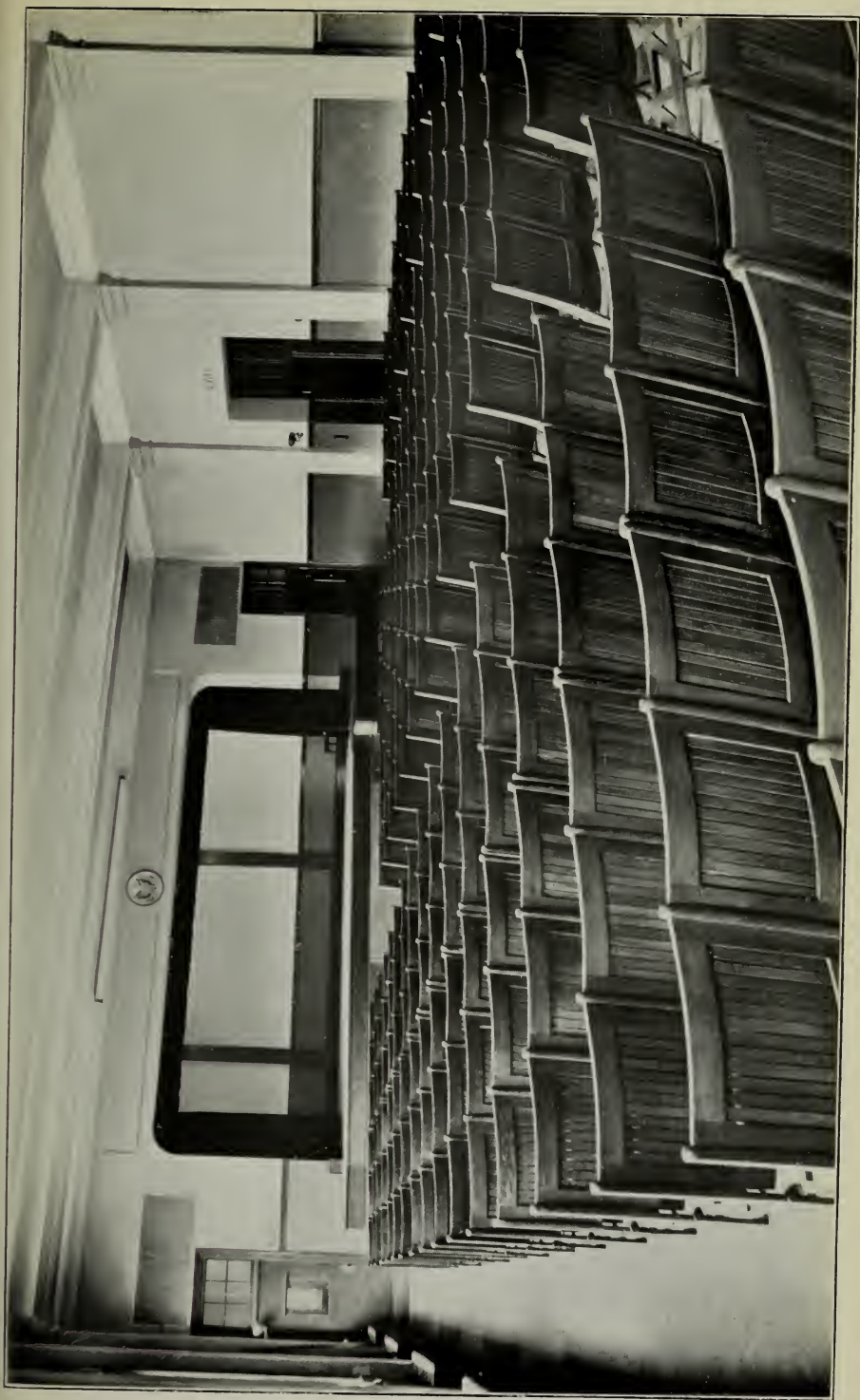
Plans are being made to relieve the John Cheverus, Roger Wolcott and Dearborn Districts.

### (3.) FIRE PROTECTION.

During the past year the Board has done a great deal of work in the erection of fire escapes and the fireproofing of basements.

#### *Fire Escapes Erected.*

Cottage Place School.	Norcross School.
Elbridge Smith School.	Old Gibson School.
Emerson School.	Plummer School.
Harris School.	Sharp School.
Henry Grew School.	Thomas N. Hart School.
Hyde School.	Washington Allston School.
Lawrence School.	William Brewster School.



WILLIAM BLACKSTONE SCHOOL — ASSEMBLY HALL.  
H. H. Arwood Architect.





Fireproofing has been completed in the following schools:

Quincy E. Dickerman School.	Agassiz School.
William Wirt Warren School.	Hyde School.
Stephen M. Weld School.	George Putnam School.
Mechanic Arts High School.	Henry L. Pierce School.

### III.

#### THE POLICY OF THE BOARD.

As stated last year the Board believes in first-class construction for all school buildings.

### IV.

#### REPAIRS.

The Board received, to be expended for alterations and repairs, the sum of \$330,674.52.

Below find some of the more important items completed:

*Architectural Division.*—New sanitation installed in the Cudworth and Sharp Schools. Master's office and lunch counter in the Roxbury High School. Book lockers, West Roxbury High School. Assembly hall altered to make 4 class-rooms in Roger Wolcott School. Teachers' room, Eliot School. Steel lockers were installed in the West Roxbury High, English High, South Boston High and Public Latin Schools.

*Civil Engineering Division.*—Grading and paving addition to the John D. Philbrick and Wendell Phillips school yards. Paving portion of yard, Ulysses S. Grant School. Erecting wooden fences at the William E. Endicott, Mozart, Robert G. Shaw, Oak Square and William H. Kent Schools. Erecting iron fences at the Pierpont and Joseph Tuckerman Schools. Laying granolithic sidewalk and installing gymnasium equipment at the Boston Trade School. Erecting fifteen new portable school buildings. Moving five portable school buildings. Cleaning and repairing catch-basins in 250 schools. Repairing pavements in 250 school yards.

*Electrical Division.*—Electric lights have been installed in eighty-four class-rooms in fourteen school buildings. Four buildings, viz., Horace Mann, Eliot, Hawes Hall and Old Gibson, have been entirely equipped. Reflectoscopes were installed in English High School and

Wells School. Underground cable was installed to connect local fire alarm system with city fire alarm service, viz., Tappan, East Boston High, Emerson, Richard C. Humphreys and Farragut Schools. Clock system was installed in Paul Revere School. Metal and wood working and printing machinery were installed in Dorchester High, George Putnam, Sherwin, Henry L. Pierce, Edmund P. Tileston, Longfellow and Continuation Schools. Work on about 2,000 repairs was done in various schools by our own men on requisitions from masters.

Repairing steam apparatus and furnaces in 237 schoolhouses and 137 portable buildings . . .	\$15,500 00
<i>Albert Palmer School</i> , installing new boilers and making changes in heating apparatus . . .	3,547 00
<i>Margaret Fuller School</i> , installing new boilers . . .	3,570 00
<i>Hancock Annex</i> , removal of and installing steam heating apparatus . . .	2,300 00
<i>Washington School</i> , removal of furnaces and installing steam heating apparatus . . .	952 00
<i>Thomas Starr King School</i> , connecting present heating apparatus to boilers in Bunker Hill School . . .	764 00

*Plumbing Division.*—Work under this division consisted of new drains, toilets and bowls, sinks, boilers, water and hot water supplies, etc., and major repairs on plumbing in the following schools:

Dorchester High, Eliot, Bowditch, Harvard, Thomas Starr King, Horace Mann, Francis Parkman, Dudley, Christopher Gibson, Samuel G. Howe, Public Latin, Quincy, Elbridge Smith, Rice, South Boston High, Charlestown High, Mechanic Arts High, Wells Annex and Wait Schools.

## V.

### CONCLUSION.

The Board wishes to express to your Honor its appreciation of your support and active assistance in its efforts to carry out its work, and to the officers of the School Committee for their assistance and coöperation.

JOSEPH P. LOMASNEY,  
WILLIAM J. HENNESSEY,  
THOMAS D. O'CONNOR,  
*Commissioners.*

## APPENDICES.

## APPENDIX I.

APPROPRIATION FOR LAND AND BUILDINGS  
FOR SCHOOLS.

## 1.

TOTAL APPROPRIATIONS AND CREDITS RECEIVED BY THE  
DEPARTMENT FROM FEBRUARY 1, 1916, TO FEBRUARY 1,  
1917.

*Appropriations.*

Balance from last year . . . . .	\$758,188 10
Bond issue . . . . .	300,000 00
Tax levy . . . . .	922,812 00
	<hr/>
	\$1,981,000 10

*Expenditures.*

Amount expended for site, erection and furnishing of new buildings . . . . .	\$374,524 75	
Amount expended for adminis- tration expenses . . . . .	43,080 49	
Amount expended for enlarging school yards . . . . .	12,845 03	
	<hr/>	
		430,450 27
		<hr/>
Amount unexpended February 1, 1917 . . . . .		\$1,550,549 83
		<hr/>

## II.

The following statement shows the expenditures on account of the above appropriation from February 1, 1916, to February 1, 1917:

Appropriations and credits, 1915-16 . . . . .	<u>\$1,981,000 10</u>
---	-----------------------

*Addition to High School of Practical Arts.*

Building . . . . .	\$41,817 38	
Furnishings . . . . .	350 00	
	<hr/>	
		\$42,167 38

*Boston Consumptives' Hospital.*

Furnishings . . . . .	<hr/> 90 60
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Carried forward . . . . .	\$42,257 98
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## SCHOOLHOUSE DEPARTMENT.

13

*Brought forward* . . . . . \$42,257 98

*Boston Industrial School for Boys.*

Building . . . . .	\$114,091 16	
Furnishings . . . . .	9,427 29	
	<hr/>	123,518 45

*Mechanic Arts High, Extension.*

Furnishings . . . . .		1,343 21
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*Mechanic Arts High, Industrial Equipment.*

Furnishings . . . . .		579 85
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*Addition to Hyde Park High School.*

Building . . . . .		19,633 25
--------------------	--	-----------

*Eliot-Hancock Districts, Lower Elementary.*

Site . . . . .		775 65
----------------	--	--------

*Emerson District, Elementary School.*

Building . . . . .		801 03
--------------------	--	--------

*Norcross District, Elementary.*

Building . . . . .		53 20
--------------------	--	-------

*Mary Lyon District, Jones's Field.*

Site . . . . .		6,296 47
----------------	--	----------

*Oliver Wendell Holmes District, Lower Elementary  
(New).*

Building . . . . .		4,790 03
--------------------	--	----------

*Wells District, Elementary.*

Site . . . . .	\$245 00	
Building . . . . .	38,935 74	
Furnishings . . . . .	5,233 62	
	<hr/>	44,414 36

*Henry L. Pierce-Mary Hemenway Districts,  
Elementary.*

Building . . . . .		24,774 54
--------------------	--	-----------

*Robert G. Shaw District, Elementary.*

Building . . . . .		9,897 89
--------------------	--	----------

*Portable Buildings (16).*

Building . . . . .		74 33
--------------------	--	-------

<i>Carried forward</i> . . . . .		<hr/> \$279,210 24
----------------------------------	--	--------------------

<i>Brought forward</i>		\$279,210 24
<i>Henry L. Pierce District, Elementary School.</i>		
Site	\$100 00	
Building	10,585 92	
		10,685 92
<i>Roger Wolcott District, Elementary School.</i>		
Site	\$8,533 50	
Building	16 50	
		8,550 00
<i>U. S. Grant District, Addition to James Otis School.</i>		
Building	\$44,128 46	
Furnishings	214 29	
		44,342 75
<i>Portable Buildings (15).</i>		
Building	\$27,459 00	
Furnishings	4,276 84	
		31,735 84
<i>Bennett District, Extension of Brighton High School Yard.</i>		
Site		5,888 55
<i>Bennett District, Preparation of Mary Lyon School Yard.</i>		
Grading		866 75
<i>Winchell School, Enlargement and Preparation of Yard.</i>		
Site		1,383 00
<i>John D. Philbrick School, Grading of Yard.</i>		
Grading		4,156 13
<i>Boston Industrial School for Boys, Enlargement of Yard.</i>		
Site		100 00
<i>Wendell Phillips School, Extension of Yard.</i>		
Grading		448 20
<i>Francis Parkman School, Grading of Yard.</i>		
Grading		2 40
<i>Carried forward</i>		\$387,369 78

*Brought forward* . . . . . \$387,369 78

*Administration Expenses.*

Salaries of employees . . . . .	\$39,612 37
Automobile care and main- tenance . . . . .	1,786 58
Printing and advertising . . . . .	190 84
Blueprint paper . . . . .	303 25
Photographic supplies . . . . .	20 17
Supplies . . . . .	653 47
Miscellaneous . . . . .	130 11
Traveling expenses . . . . .	383 70

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43,080 49

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\$430,450 27

Amount voted for and set aside, but not  
expended to date for sites, construction and  
furnishing of new buildings, administration  
expenses, fire protection and enlarging  
school yards . . . . .

1,550,549 83

---

\$1,981,000 10

---

Elementary schools . . . . .

\$194,139 09

High schools . . . . .

193,230 69

Administration expenses . . . . .

43,080 49

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\$430,450 27

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## APPENDIX II.

APPROPRIATION FOR REPAIR AND ALTERATION  
WORK, REPAIRS TO FURNITURE, EQUIPMENT,  
ETC., RENTS AND TAXES, AND EXPENSES OF  
THE COMMISSION.

## I.

## GENERAL STATEMENT.

During the year February 1, 1916, to February 1, 1917, the following sums were expended by the Schoolhouse Department for repair and alteration work, repairs to furniture, equipment, etc., rents and taxes, and expenses of the commission:

February 1, 1916, appropriation	<u>\$417,505 17</u>
---------------------------------	---------------------

*Repairs and Equipment.**Carpentry:*

Repairs	\$36,018 81
Alterations	11,873 00
New floors	2,384 26

*Furniture and Equipment:*

Repairs	15,849 05
Curtain repairs	1,553 15
Clock repairs	2,139 45
Electric clock installation	42 04
Electric clock maintenance	822 68
Gymnasium apparatus	60 00
Industrial apparatus maintenance	185 68
Manual training and pre-vocational apparatus maintenance	509 75
Reflectoscope maintenance	190 28
Vacuum cleaning maintenance,	136 00
Rubber treads and matting	1,085 25

<i>Carried forward</i>	<u>\$72,849 40</u>
------------------------	--------------------

<i>Brought forward</i>	\$72,849 40
<i>Blackboards:</i>	
New	464 18
Repairs	3,910 63
<i>Plumbing:</i>	
Repairs	29,375 62
<i>Roofing:</i>	
Repairs	12,636 39
<i>Painting:</i>	
Painting	20,246 10
Glazing	7,493 87
<i>Heating:</i>	
Repairs	36,967 31
Ventilation	857 51
<i>Care of Grounds:</i>	
Gypsy moths	324 00
Planting	458 83
<i>Masonry:</i>	
Repairs	13,426 94
Asphalt and concrete	482 00
Catch-basins	3,681 93
Grading	98 50
Paving	5,297 30
Plastering	2,813 86
Waterproofing	1,420 60
<i>Locks and Bells:</i>	
Bells and telephone installation	543 14
Bells and telephone maintenance	2,145 72
Locksmithing	3,888 37
<i>Gas and Electrical:</i>	
Electric light installation	1,535 41
Electric light maintenance	2,192 34
Gas appliance installation	77 74
Gas appliance maintenance	1,150 11
<i>Carried forward</i>	\$224,337 80

*Brought forward* . . . \$224,337 80

*Fire Protection:*

Fire alarm installation	—
Fire alarm maintenance	1,564 36
Fire escapes (new)	47,890 45
Fire escapes (repairs)	1,851 31
Fire extinguishers	304 34
Fire protection	12,999 84

*Miscellaneous:*

Care and cleaning	1,363 90
Flagstaffs	1,150 97
Iron and wire work	4,242 47
Janitors' supplies	239 56
Motors and engines	1,644 08
Teaming	1,461 07

*Administration Expenses.*

Salaries, commissioners and clerks,	12,455 55
Salaries, inspectors	25,986 51
Advertising	82 20
Automobile expenses	9,895 98
Boiler insurance	14 57
Car fares, traveling expenses	1,564 32
Electric lighting of offices	12 49
Expert services	475 00
Furniture	1,159 75
Postage	305 00
Printing	1,178 60
Stationery	279 45
Subscription	29 00
Sundries	35 00
Teaming	—
Telephone	58 00

Total repairs and administration expenses . \$352,581 57

*Hired Buildings, Rents and Taxes.*

Barham Memorial Church	\$600 00
Boylston street, 48	1,422 49
Chambers street, 27	400 00
Chambers street, 38 (St. Andrew's Chapel)	540 00
Chambers street, 103	1,373 00
Columbus avenue, 627 (Saranac Apartments)	420 00

*Carried forward* . . . \$4,755 49 \$352,581 57

<i>Brought forward</i> . . . . .	\$4,755 49	\$352,581 57
Eliot street, Jamaica Plain (Trustees' Building) . . . . .	705 00	
Everett Square Theater . . . . .	18 00	
Franklin Union . . . . .	2,646 00	
Greenwood Hall, Glenway street, Dorchester . . . . .	600 00	
Hanson street, 1 . . . . .	744 00	
Hull street, 24 . . . . .	420 00	
Hyde Park Gymnasium . . . . .	626 67	
Isabella street, 12 . . . . .	78 00	
Jordan Hall . . . . .	50 50	
La Grange street, 25 . . . . .	5,249 80	
La Grange street, 31 . . . . .	1,200 00	
Moon street . . . . .	6,000 00	
National Theater . . . . .	150 00	
North Bennet street, 39 . . . . .	2,957 00	
Parmenter street, 20 . . . . .	102 77	
Reed street, 89 . . . . .	156 00	
Saratoga street, 66 . . . . .	600 00	
Tileston street, 52 . . . . .	600 00	
Tremont street, 218 . . . . .	3,420 00	
Walnut avenue and Walnut park, . . . . .	720 00	
Willowwood street, 3 . . . . .	1,500 00	
		<hr/>
Total rents and taxes . . . . .		33,299 23
		<hr/>
Grand total . . . . .		\$385,880 80
		<hr/>
Balance returned to School Committee . . . . .		\$31,624 37
		<hr/>

## II.

## SUBDIVISION OF EXPENDITURES.

Elementary schools . . . . .	\$262,851 00
Administration and incidental expenses . . . . .	62,863 00
High schools and special schools . . . . .	55,225 80
School Committee quarters . . . . .	4,941 00
	<hr/>
	\$385,880 80



## APPENDIX III.

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 APPROPRIATION FOR NEW FURNITURE, ETC., FOR  
 OLD BUILDINGS.
 

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## I.

The following sums were expended by the Schoolhouse Department during the financial year, February 1, 1916, to February 1, 1917, and charged to the Appropriation for New Furniture, etc., for Old Buildings:

February 1, 1916, appropriation . . . . . \$63,200 00

*Furniture and Equipment:*

Electric clock installation . . . . .	\$879 60
Industrial apparatus installation, . . . . .	248 37
Manual training and pre-vocational apparatus . . . . .	2,762 79
New blackboards . . . . .	66 96
New clocks . . . . .	279 00
New curtains . . . . .	4,964 00
New furniture . . . . .	30,706 62
Reflectoscope installation . . . . .	309 63
Vacuum cleaning installation . . . . .	70 19

*Electrical and Gas:*

Bells and telephone installation . . . . .	405 98
Electric light installation . . . . .	15,090 48
Fire alarm installation . . . . .	860 09
Gas appliances installation . . . . .	260 85
Motors and engines . . . . .	56 03

*Miscellaneous:*

Fire extinguishers . . . . .	528 69
Plans and advertising . . . . .	7 20
Rubber treads and matting . . . . .	24 00

Total expenditures . . . . .	57,520 48
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Balance returned to School Committee . . . . .	<u>\$5,679 52</u>
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## APPENDIX IV.

APPROPRIATION FOR EQUIPMENT, ETC., FOR  
NURSES' ROOMS.

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February 1, 1916, appropriation . . . . .	\$400 00
New furniture . . . . .	\$65 70
Gas appliances installation . . . . .	89 93
	<hr/>
Total expenses . . . . .	155 63
	<hr/>
Balance returned to School Committee . . . . .	<u>\$244 37</u>





HIGH SCHOOL OF PRACTICAL ARTS ADDITION.

J. A. SCHWEINFURTH Architect.



## APPENDIX VI.

## HIRED BUILDINGS.

## I.

Rooms in the following buildings have been hired for school purposes; rents, taxes, water rates, heating, lighting and janitors' expenses paid for the same, amounting to \$33,299.23, during the year from February 1, 1916, to February 1, 1917.

For	Location.	Remarks.
Abraham Lincoln District *.....	Isabella street, 12.....	Rent per annum \$312, including heat and light.
Compulsory Continuation School,	La Grange street, 25.....	Rent per annum \$4,000, city to furnish heat, light and water and taxes.
Compulsory Continuation School,	La Grange street, 31.....	Rent per annum, \$1,200, city to furnish heat and light.
Continuation School.....	Young Men's Christian Union Building, 48 Boylston street.	Rent per annum \$1,650, including heat, light and janitor's service.
English High School *.....	Franklin Union, Berkeley and Appleton streets.	Rent per annum \$4,600, including heat and janitor's service.
English High School.....	National Theater, Tremont street.	Used for graduation exercises. Rent for same \$150.
Eliot District, two special classes,	Hull street, 24.....	Rent per annum \$420, city to furnish heat and janitor's service.
Eliot District, special classes.....	North Bennet street, 39....	Rent per annum \$3,160, including heat, light, janitor and water.
Eliot District, Continuation School.	Tileston street, 52.....	Rent per annum \$600, including heat, light and janitor's service.
Franklin District, Cooking Room,	Hanson street, 1.....	Rent per annum \$744, including heat and janitor's service.
George Putnam District, Kindergarten.	Walnut avenue.....	Rent per annum \$720, including heat and janitor's service.
George T. Angell District, Special Class.	Reed street, 89.....	Rent per annum \$156, includes all expenses.

\* Vacated during the year.

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## HIREO BUILDINGS.— *Concluded.*

For	Location.	Remarks.
Girls' High School.....	Jordan Hall, Huntington avenue.	Used for graduation exercises. Rent for same \$50.50.
Hancock District .....	Moon street .....	Rent per annum \$6,000, including heat and janitor's service.
Hancock District, Grammar and Special Classes.*	Parmenter street, 20.....	Rent per annum \$1,000, including heat, light and janitor's service.
Hyde, Cooking Room .....	Columbus avenue, 627 .....	Rent per annum \$420, includes all expenses.
Hyde Park High School .....	Young Men's Christian Association Gymnasium.	Rent per annum \$550, includes all expenses.
Hyde Park High School .....	Everett Square Theater, ...	Used for graduation exercises. Rent for same \$18.
John A. Andrew District .....	Barham Memorial Church, corner Dorchester and Vinton streets, South Boston.	Rent per annum \$600, including heat and janitor's service.
Manual Training School .....	Eliot street, Jamaica Plain ..	Rent per annum \$800, including heat and janitor's service.
Oliver Wendell Holmes District, Kindergarten Class.	Greenwood Hall, Glenway street, Dorchester.	Rent per annum \$600, including heat, light and janitor's service.
Roger Wolcott District .....	Willowood street, 3, Harvey Hall.	Rent per annum \$1,500, includes all expenses.
School Committee.....	Tremont street, 218 .....	Rent per annum \$3,420, including heat, light and water service.
Ulysses S. Grant District, Special Class.	Saratoga street, 66 .....	Rent per annum \$600, city to furnish janitor's service, heat, light and water.
Washington District, Special and Ungraded Classes.*	Chambers street, 103. ....	Rent per annum \$1,620, including heat and janitor's service.
Wells District, Primary Class*..	Chambers street, 27.....	Rent per annum \$800, including heat, light, janitor and water.
Wells District, Kindergarten and Grammar Classes.*	Chambers street, 38.....	Rent per annum \$1,080, including heat, janitor and water rates.

\* Vacated during the year.



# APPENDIX VII.

## Table Showing Cost of Buildings, Cost per Cubic Foot, Children Accommodated and Cost per Pupil.

NOTE.—Rated number of pupils and cost per pupil in elementary schools are figured by actual number of pupils for which the building was originally planned to accommodate in class-rooms only. See Appendix XV. for date.

NAME OF SCHOOL BUILDING.	Number of Class-rooms.	Grade.	Class of Construction.	Building, Heating, Plumbing, and Electrical Contracts.	Total Cost of Building.	PERCENTAGE CONTRACTS BEAR TO TOTAL COST OF BUILDING.				Cubical Contents.	Cost per Cubic Foot.	PROPORTION CON- TRACTS BEAR TO COST PER CUBIC FOOT.				Cubic Feet. Class-room.	Children Accommodated.	Cost per Pupil.				
						Bldg.	Heat.	Plumb.	Elec.			Bldg.	Heat.	Plumb.	Elec.							
Marshall.....	15	P.	1st	B., \$106,516 75	\$124,467 65	Per Ct.	Per Ct.	Per Ct.	Per Ct.	516,624	Cents.	Cents.	Cents.	Cents.	37,000	758	\$164 20					
				H., 9,483 00																		
				P., 5,197 00																		
				E., 3,270 90																		
William E. Russell.....	18	G.	1st	B., \$158,189 52	188,524 56	85.6	7.6	4.2	2.6	894,941	21.1	20.6	1.9	1	50,000	976	192 14					
				H., 15,132 40																		
				P., 9,580 29																		
				E., 5,622 35																		
Farragut.....	14	P.	1st	B., \$127,262 98	150,526 43	83.9	8	5.1	3	652,630	23.1	19.5	1.9	1.1	47,000	714	210 82					
				H., 12,432 00																		
				P., 6,821 45																		
				E., 4,010 00																		
Paul Jones.....	11	P.	1st	B., \$95,095 75	114,370 35	84.5	8.3	4.5	2.7	510,386	22.4	18.6	2	1.1	36,000	643	177 87					
				H., 10,376 00																		
				P., 5,324 00																		
				E., 3,574 60																		
Ellis Mendell.....	12	P.	1st	B., \$103,569 20	122,267 20	83.1	9.1	4.7	3.1	517,035	23.6	20	1.8	1.1	43,000	612	199 78					
				H., 9,825 04																		
				P., 5,658 11																		
				E., 3,414 85																		
Jefferson.....	19	G.	1st	B., \$182,261 94	210,890 49	84.7	7.9	4.6	2.8	856,777	24.6	21.2	2	.8	45,000	1,038	203 17					
				H., 16,927 15																		
				P., 6,449 00																		
				E., 5,251 50																		

**Table Showing Cost of Buildings, Cost per Cubic Foot, Children Accommodated and Cost per Pupil.—Continued.**

NOTE.— Rated number of pupils and cost per pupil in elementary schools are figured by actual number of pupils for which the building was originally planned to accommodate in class-rooms only. See Appendix XV. for date.

NAME OF SCHOOL BUILDING.	Number of Class-rooms.	Grade.	Class of Construction.	Building, Heating, Plumbing and Electrical Contracts.	Total Cost of Building.	PERCENTAGE CONTRACTS BEAR TO TOTAL COST OF BUILDING.				Cubical Contents.	Cost per Cubic Foot.	PROPORTION CON- TRACTS BEAR TO COST PER CUBIC FOOT.				Children Class-room.	Accommodated.	Cost per Pupil.
						Bldg.	Heat.	Plumb.	Elec.			Bldg.	Heat.	Plumb.	Elec.			
Washington.....	30	G.	1st	B., \$263,661 16 H., 28,305 94 P., 21,417 05 E., 12,157 45	\$325,541 60	81	8.7	6.6	3.7	1,300,792	25	20.3	2.2	1.6	.9	43,000	1,560	\$208 68
Christopher Columbus...	24	P.	1st	B., \$136,966 08 H., 16,244 00 P., 15,519 00 E., 4,783 00	173,512 08	78.9	9.4	9	2.7	727,008	23.9	18.9	2.2	2.1	.7	30,000	1,100	150 32
John Boyle O'Reilly.....	14	P.	1st	B., \$95,712 50 H., 10,227 00 P., 4,040 00 E., 2,859 50	112,839 00	84.8	9.1	3.6	2.5	450,248	25.1	21.2	2.3	1	.6	32,000	672	167 91
Oliver Hazard Perry.....	14	G.	1st	B., \$118,497 38 H., 17,621 50 P., 5,094 00 E., 4,932 75	146,145 63	81.1	12.1	3.5	3.3	612,351	23.9	19.4	2.9	.8	.8	44,000	770	189 80
Mather.....	30	G.	1st	B., \$241,098 44 H., 27,807 00 P., 11,645 50 E., 8,782 05	289,332 99	83.4	9.6	4	3	1,353,831	21.4	17.8	2.1	.9	.6	42,000	1,650	175 36
Thomas Gardner.....	14	G.	1st	B., \$113,769 15 H., 15,994 04 P., 6,038 00 E., 4,466 38	140,267 57	81.1	11.4	4.3	3.2	735,573	19.1	15.5	2.2	.8	.6	52,000	770	182 17

Oliver Wendell Holmes...	24	G.	1st	B., \$159,563 85 H., 21,930 18 P., 3,037 00 E., 6,116 99	195,648 02	81.6	11.2	4.1	3.1	991,609	19.7	16.1	2.2	.8	.6	41,000	1,224	159 84
Samuel W. Mason.....	14	P.	1st*	B., \$99,527 64 H., 10,447 00 P., 4,990 00 E., 3,300 00	118,324 64	84.1	8.8	4.2	2.9	438,223	27	22.7	2.4	1.1	.8	31,000	644	183 73
Dearborn.....	21	G.	1st	B., \$182,240 82 H., 20,874 00 P., 8,929 50 E., 5,087 00	217,131 32	84	9.6	4.1	2.3	980,100	22.2	18.7	2.1	.9	.5	47,000	1,100	195 61
John Greenleaf Whittier,	10	P.	1st	B., \$61,053 55 H., 7,540 70 P., 3,551 00 E., 2,590 90	74,736 15	81.7	10.1	4.8	3.4	325,051	23	18.8	2.3	1.1	8	32,000	478	156 35
James Otis .....	12	P.	1st	B., \$90,867 00 H., 8,767 00 P., 4,889 00 E., 3,295 00	107,818 00	84.3	8.1	4.5	3.1	411,645	26.2	22.1	2.1	1.2	.8	34,000	612	174 51
Joseph Tuckerman.....	10	P.	1st	B., \$61,875 79 H., 8,422 00 P., 4,226 70 E., 2,898 76	77,423 25	79.9	10.9	5.5	3.7	330,171	23.5	18.7	2.6	1.3	.9	33,000	480	161 30
Sarah J. Baker.....	24	P.	1st	B., \$130,016 23 H., 18,673 00 P., 7,625 00 E., 4,880 00	161,194 23	80.7	11.6	4.7	3	702,384	22.9	18.5	2.6	1.1	.7	29,000	1,152	139 92
William E. Endicott.....	10	P.	1st	B., \$64,745 25 H., 7,951 00 P., 3,667 91 E., 2,693 61	79,057 77	81.9	10.1	4.6	3.4	348,883	22.6	18.5	2.3	1	.8	35,000	476	166 09
Nathaniel Hawthorne....	9	P.	1st	B., \$54,682 82 H., 7,518 00 P., 3,100 00 E., 2,611 25	67,912 07	80.5	11.1	4.6	3.8	281,305	24.1	19.4	2.7	1.1	.9	31,000	447	151 93

**Table Showing Cost of Buildings, Cost per Cubic Foot, Children Accommodated and Cost per Pupil.—Continued.**

Note.—Rated number of pupils and cost per pupil in elementary schools are figured by actual number of pupils for which the building was originally planned to accommodate in class-rooms only. See Appendix XV. for date.

NAME OF SCHOOL BUILDING.	Number of Class-rooms.	Grade.	Class of Construction.	Building, Heating, Plumbing and Electrical Contracts.	Total Cost of Building.	PER CENTAGE CONTRACTS BEAR TO TOTAL COST OF BUILDING.				Cubical Contents.	Cost per Cubic Foot.	PROPORTION CON- TRACTS BEAR TO COST PER CUBIC FOOT.				Cubic Feet, Class-room.	Children Accommodated.	Cost per Pupil.
						Bldg.	Heat.	Plumb.	Elec.			Bldg.	Heat.	Plumb.	Elec.			
Charlestown High. ....	.....	H.	1st	B., \$253,157 94	\$296,055 79	Per Ct. 85.5	Per Ct. 6.3	Per Ct. 4.7	Per Ct. 3.5	1,267,608	Cents. 23.4	Cents. 19.9	Cents. 1.6	Cents. 1.1	.8	.....	540	\$548 25
				H., 18,711 25														
				P., 13,970 00														
				E., 10,216 00														
Common Building. ....	.....	H.	1st	B., \$276,559 15	329,237 08	84	8	4	4	1,112,234	29.6	24.9	2.3	1.2	1.2	.....	350	940 65
				H., 26,338 97														
				P., 13,169 48														
Girls' Latin. ....	.....	H.	1st	B., \$249,577 77	297,116 39	84	8	4	4	1,108,193	26.8	22.5	2.1	1.1	1.1	.....	600	495 19
				H., 23,769 31														
				P., 11,884 66														
Patrick A. Collins. ....	17	G.	1st	B., \$148,397 59	176,663 79	84	8	4	4	725,561	24.3	20.4	1.9	1	1	43,000	904	195 42
				H., 14,133 10														
				P., 7,066 55														
Edward Everett. ....	14	G.	1st	B., \$82,868 43	107,515 43	77.1	14.5	4.3	4.1	516,678	20.8	16	3	.9	.9	32,000	614	175 17
				H., 15,542 00														
				P., 4,665 00														
				E., 4,440 00														

Nathan Hale*.....	12	P.	1st	B., \$54,599 35 H., 6,682 00 P., 3,397 47 E., 2,553 00	81.2	10	5	3.8	333,379	20.2	16.4	2	1	.8	28,000	480	140 08	
John Cheverus.....	16	G.	1st	B., \$80,268 04 H., 11,975 00 P., 5,040 31 E., 4,793 00	78.6	11.7	5	4.7	535,474	19	14.9	2.2	.9	.8	30,000	704	145 89	
Peter Faneuil.....	17	P.	1st	B., \$91,333 05 H., 7,977 00 P., 4,485 95 E., 4,283 50	108,079 50	84.5	7.4	4.2	3.9	431,886	25	21.1	1.9	1	24,000	760	142 21	
Dorchester High Addition, .....		H.	1st	B., \$110,996 60 H., 12,933 00 P., 6,170 37 E., 4,762 68	134,862 65	82.3	9.6	4.6	3.5	580,869	23.2	19.1	2.2	1.1	.8	.....	700	192 62
Abraham Lincoln.....	40	G.	1st	B., \$229,396 85 H., 24,097 58 P., 15,381 00 E., 11,213 00	280,088 43	81.9	8.6	5.5	4	1,158,533	24.2	19.8	2.1	1.3	1	28,963	1,820	153 89
William Lloyd Garrison, 10	G.	1st		B., \$51,950 30 H., 6,688 00 P., 3,823 18 E., 3,690 00	66,151 48	78.5	10.1	5.8	5.6	275,640	24	18.8	2.4	1.4	1.4	27,564	460	143 81
Girls' High Addition.....		H.	1st	B., \$97,396 70 H., 9,716 50 P., 3,274 39 E., 4,075 00	114,462 59	85.1	8.5	2.9	3.5	522,018	21.9	18.6	1.9	.6	.8	.....	400	286 16
Samuel Adams.....	16	G.	1st	B., \$84,553 84 H., 11,701 50 P., 5,668 00 E., 5,595 00	107,518 34	78.6	10.9	5.3	5.2	481,016	22.4	17.6	2.4	1.2	1.2	34,358	632	170 12
Lafayette †.....	8	P.	1st	B., \$51,564 96 H., 5,321 34 P., 3,544 84 E., 2,703 50	63,134 94	81.7	8.4	5.6	4.3	220,269	28.7	23.4	2.4	1.6	1.3	27,534	352	179 36

† Contains Assembly Hall.

\* Roof second class.

**Table Showing Cost of Buildings, Cost per Cubic Foot, Children Accommodated and Cost per Pupil.—Continued.**

NOTE.—Rated number of pupils and cost per pupil in elementary schools are figured by actual number of pupils for which the building was originally planned to accommodate in class-rooms only. See Appendix XV, for date.

NAME OF SCHOOL BUILDING.	Number of Class-rooms.	Grade.	Class of Construction.	Building, Heating, Plumbing and Electrical Contracts.	Total Cost of Building.	PERCENTAGE CONTRACTS BEAR TO TOTAL COST OF BUILDING.				Cubical Contents.	Cost per Cubic Foot.	PROPORTION CON- TRACTS BEAR TO COST PER CUBIC FOOT.				Cubic Feet, Class-room.	Children Accommodated.	Cost per Pupil.
						Bldg.	Heat.	Plumb.	Elec.			Bldg.	Heat.	Plumb.	Elec.			
John Lothrop Motley.....	4	P.	2d	B., \$18,395 25	\$22,510 25	Per Ct. 81.7	Per Ct. 10.3	Per Ct. 5.4	Per Ct. 2.6	99,445	Cents. 22.6	Cents. 18.5	Cents. 2.3	1.2	.6	24,861	172	\$130 87
				H., 2,310 00														
				P., 1,205 00														
				E., 600 00														
Charles Bulfinch.....	12	P.	2d	B., \$64,545 73	78,925 73	81.8	8.8	5	4.4	365,368	21.6	17.7	1.9	1.1	.9	30,447	538	146 59
				H., 6,980 00														
				P., 3,900 00														
				E., 3,500 00														
John Winthrop.....	16	G.	2d	B., \$87,073 54	110,673 54	78.7	12.2	4.8	4.3	601,047	18.4	14.5	2.2	.9	.8	37,565	724	152 83
				H., 13,500 00														
				P., 5,300 00														
				E., 4,800 00														
Edmund P. Tileston.....	16	G.	2d	B., \$106,492 55	132,178 10	80.6	10	4.9	4.5	688,288	19.2	15.5	1.9	1	.8	42,785	724	182 57
				H., 13,189 50														
				P., 6,543 50														
				E., 5,952 55														
George T. Angell.....	8	P.	2d	B., \$45,153 50	55,154 50	81.9	9.1	5.2	3.8	208,762	26.4	21.6	2.4	1.4	1	26,095	352	156 69
				H., 5,000 00														
				P., 2,900 00														
				E., 2,101 00														
Ulysses S. Grant.....	18	G.	2d	B., \$92,797 91	116,509 09	79.6	11.8	4.7	3.9	592,171	19.7	15.7	2.3	.9	.8	32,898	822	141 74 *
				H., 13,722 05														
				P., 5,451 13														
				E., 4,538 00														



Lewis.....	17	G.	2d	B., \$85,416 29 H., 12,600 00 P., 4,600 00 E., 5,474 00	108,090 29	79	11.7	4 2	5 1	642,178	16.8	13 3	2	.7	.8	37,775	778	138 93
Benedict Fenwick.....	12	P.	2d	B., \$49,356 45 H., 8,150 00 P., 3,331 00 E., 2,044 00	62,881 45	78.5	13	5 3	3 2	322,424	19.5	15.3	2.5	1	.7	26,869	547	114 96
William Bradford.....	8	P.	2d	B., \$32,638 04 H., 5,987 00 P., 2,700 00 E., 1,389 00	42,714 04	76 4	14	6 3	3 3	251,002	17	13	2.4	1.1	.5	31,375	372	114 82
Roxbury High Annex.....	.....	H.	2d	B., \$60,354 12 H., 8,864 24 P., 4,940 80 E., 5,498 75	79,657 95	75.8	11.1	6 2	6 9	413,359	19.3	14.6	2.1	1.2	1.4	.....	200	398 29
Ellen H. Richards.....	8	P.	2d	B., \$33,460 15 H., 6,600 00 P., 3,384 50 E., 1,145 11	44,589 76	75	14.8	7 6	2 6	229,258	19.5	14.6	2.9	1.5	.5	28,637	366	121 83
Mozart.....	4	P.	2d	B., \$17,690 00 H., 2,870 00 P., 1,816 00 E., 515 00	22,801 00	77.3	12.6	7 9	2 2	108,542	21.1	16.3	2.7	1.7	.4	27,133	148	154 67
Martha A. Baker.....	4	P.	2d	B., \$19,474 91 H., 2,828 00 P., 1,853 00 E., 402 00	24,557 91	79.3	11.5	7 5	1 7	127,650	19.2	15.2	2.2	1.4	.4	31,912	160	153 49
John J. Williams.....	12	P.	2d	B., \$53,538 44 H., 8,500 00 P., 4,100 00 E., 3,000 00	69,138 44	77.5	12.3	5 9	4 3	303,295	22.8	17.7	2.8	1.3	1	25,276	495	139 67
John D. Philbrick *.....	8	P.	2d	B., \$43,822 25 H., 8,000 00 P., 4,020 90 E., 3,820 60	59,663 75	73.4	13.4	6 7	6 5	305,209	19.5	14.3	2.6	1.3	1.3	38,151	333	179 17

\* Contains Assembly Hall.

Table Showing Cost of Buildings, Cost per Cubic Foot, Children Accommodated and Cost per Pupil.—*Concluded.*

NOTE.—Rated number of pupils and cost per pupil in elementary schools are figured by actual number of pupils for which the building was originally planned to accommodate in classrooms only. See Appendix XV. for date.

NAME OF SCHOOL BUILDING.	Number of Class-rooms.	Grade.	Class of Construction.	Building, Heating, Plumbing and Electrical Contracts.	Total Cost of Building.	PERCENTAGE CONTRACTS BEAR TO TOTAL COST OF BUILDING.				Cubical Contents.	Cost per Cubic Foot.	PROPORTION CONTRACTS BEAR TO COST PER CUBIC FOOT.				Children Accommodated.	Cost per Pupil.
						Bldg.	Heat.	Plumb.	Elec.			Bldg.	Heat.	Plumb.	Elec.		
High School of Practical Arts.	12	1st	P.	B., \$240,190 20	\$300,850 67	79.8	7.8	5	7.4	1,222,909	24.6	19.6	1.9	1.2	1.9	1,000	\$300 85
				H., 23,390 00													
				P., 14,923 69													
				E., 22,346 78													
Philip H. Sheridan	10	P.	2d	B., \$53,541 00	74,211 94	74.8	13	6.5	5.7	338,832	21.9	16.4	2.8	1.4	1.3	495	149 92
				H., 9,617 94													
				P., 4,823 00													
				E., 4,230 00													
Florence Nightingale	6	G.	2d	B., \$45,929 14	60,365 14	76.1	13.4	5.8	4.7	272,303	22	16.7	3	1.3	1	391	154 39
				H., 8,100 00													
				P., 3,500 00													
				E., 2,836 00													
Mary Lyon	12	P.	2d	B., \$26,917 31	37,346 62	72.1	14.1	6.2	7.6	189,420	19.7	14.2	2.8	1.2	1.5	224	166 73
				H., 5,254 00													
				P., 2,322 00													
				E., 2,853 31													
George Frisbie Hoar	16	P.	2d	B., \$53,509 91	69,131 34	77.4	13	5.9	3.7	305,204	22.6	17.5	2.9	1.3	.9	519	133 20
				H., 8,985 00													
				P., 4,015 00													
				E., 2,591 43													
Quincy E. Dickerman	18	P.	2d	B., \$70,934 91	88,458 79	80.2	11.7	5	3.1	394,374	22.4	18	2.6	1.1	.7	677	130 66
				H., 10,300 00													
				P., 4,450 00													
				E., 2,773 88													

High School of Commerce.	.....	H. 1st	B., \$399,427 49 H., 35,896 65 P., 21,532 00 E., 23,616 30	480,472 44	83.1	7.5	4.5	4.9	1,971,619	24.4	20.3	1.8	1.1	1.2	.....	1,600	300 30
William Blackstone * .....	24	G. 1st	B., \$139,954 75 H., 17,505 00 P., 8,276 50 E., 6,746 59	170,482 84	80.9	10.3	4.8	4	720,840	23.6	19.1	2.4	1.1	1	30,035	1,056	161 44
Boston Trade School * .....	.....	S. 1st	B., \$224,172 49 H., 22,768 45 P., 9,700 70 E., 23,371 90	280,013 54	80.1	8.1	3.5	8.3	1,224,524	22.9	18.3	1.9	.8	1.9			
Mary Hemenway .....	17	P. ....	B., \$109,615 00 H., 14,000 00 P., 7,435 00 E., 6,350 00	137,400 00	79.8	10.2	5.4	4.6	431,524	31.8	25.4	3.2	1.7	1.5	25,384	764	179 84
Hyde Park High, Addition.	.....	H. 1st	B., \$90,024 37 H., 9,978 53 P., 3,000 00 E., 6,150 00	109,152 90	82.5	9.2	2.7	5.6	322,464	33.8	27.9	3.1	.9	1.9	.....	600	181 92
Robert G. Shaw .....	16	P. 1st	B., \$137,600 00 H., 17,440 00 P., 9,500 00 E., 9,460 00	174,000 00	79.1	10	5.5	5.4	564,707	30.8	24.3	3.1	1.7	1.7	35,294	704	247 16
Henry L. Pierce .....	16	P. 1st	B., \$128,577 00 H., 14,500 00 P., 9,000 00 E., 9,150 00	161,227 00	79.7	9	5.6	5.7	437,871	36.8	29.3	3.3	2.1	2.1	27,367	704	229 02

\* Cost to February 1, 1917.

## APPENDIX VIII.

## INSTRUCTIONS TO ARCHITECTS.

## ARCHITECTS' SERVICES.

Every Architect employed by the Schoolhouse Commissioners of the City of Boston, as the architect for erecting a building, is to perform the duties hereinafter provided.

*This Agreement*, made \_\_\_\_\_ day of \_\_\_\_\_ in the year one thousand nine hundred and \_\_\_\_\_ by the City of Boston, acting through the Board of Schoolhouse Commissioners, party of the first part, and \_\_\_\_\_ party of the second part, hereinafter designated the Architect.

*Witnesseth*, That the Architect, in consideration of the agreements herein made by the City, agrees with the said City as follows:

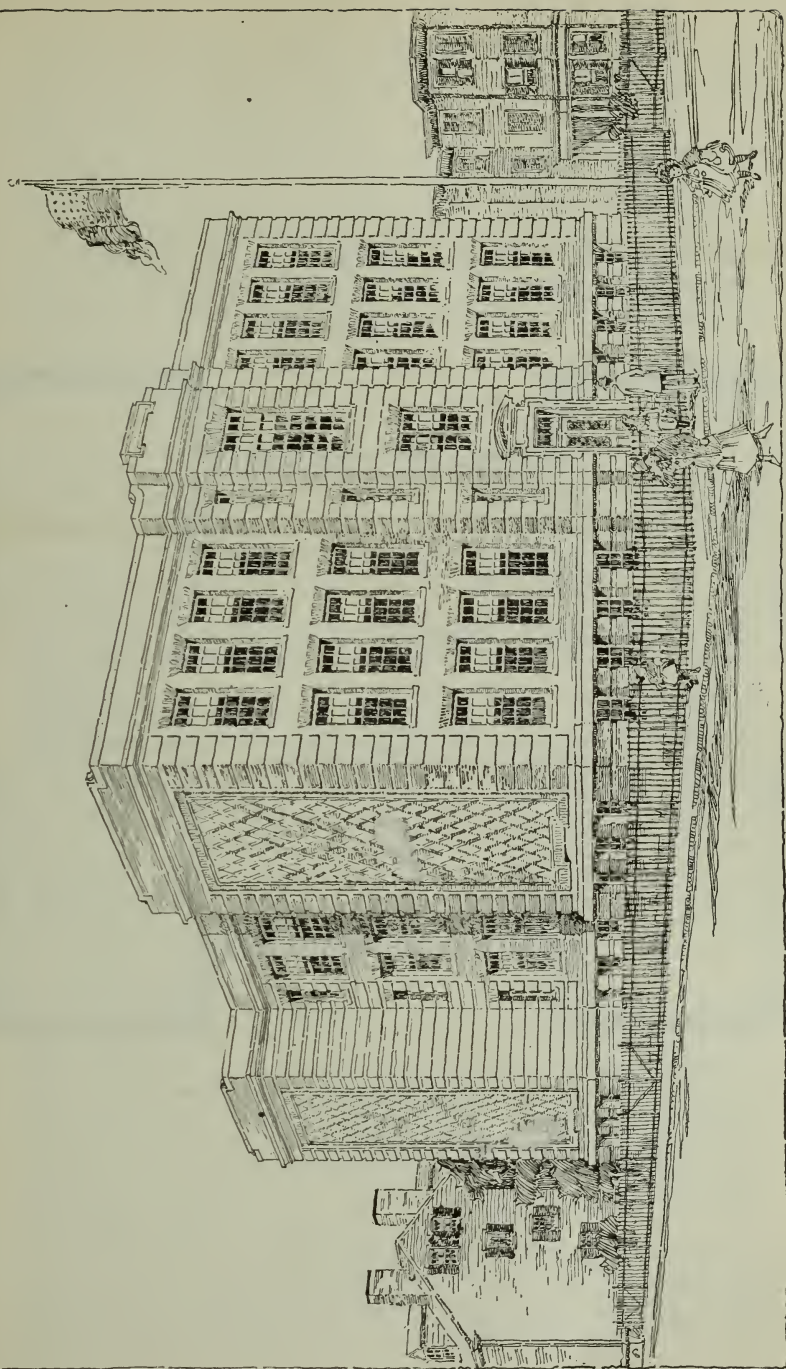
SECTION 1.—*The Board*.—(a.) Is to furnish the Architect with the requirements and information for the design and construction of the building for which he is the Architect, and give the approximate cubical contents and proposed cost per cubic foot thereof:

(b.) Is to provide the services of domestic engineers to confer with the Architect during the preparation of preliminary studies, and when these are accepted by the Board to advise the Architect in the details of their work, and make the necessary working drawings and specifications for (excepting plumbing), and have the direction of, the plumbing, heating, ventilating and electric work for the building, said work being hereinafter designated as the domestic engineering;

(c.) Is to give the grade and lines of streets and adjoining lots;

(d.) Is to give all information regarding the lot, and on request of the Architect, or any person doing work on the building, furnish \_\_\_\_\_ information relating to the above, the sewer, water, gas and electric service, and to the rights, restrictions and boundaries of the lot on which the building is to be constructed.

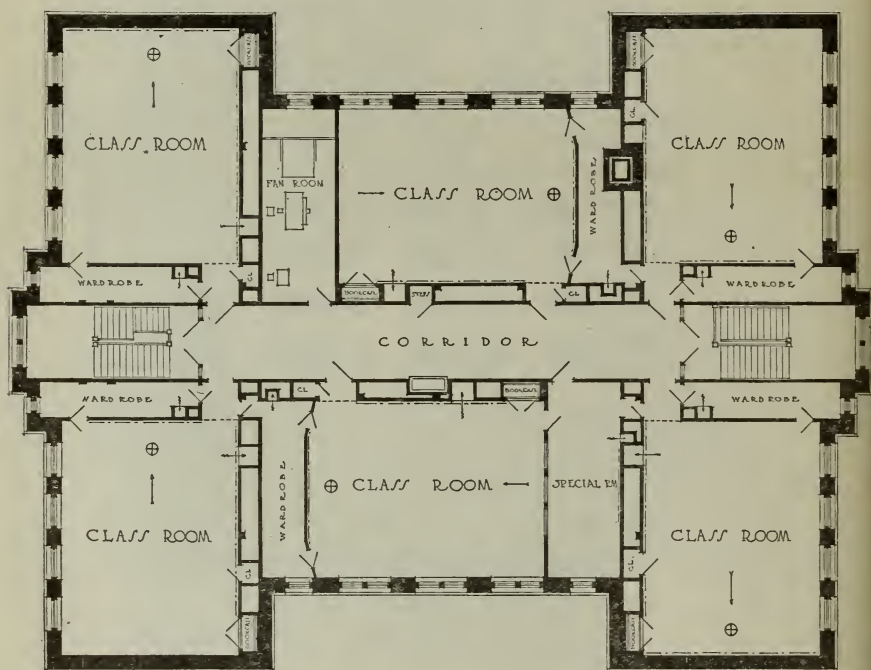
SECT. 2.—*The Architect*.—(a.) Is to consult and advise with the Board and make such preliminary studies as will acquaint the Board with the contemplated arrangement, design, construction and cubical contents of the building, and enable it to agree with the Architect upon a definite limit of cost therefor, and to accept said preliminary studies as the basis



JAMES OTIS SCHOOL — THIRD STORY ADDITION.  
DESMOND & LORD, Architects.



ALTERATION AND ADDITION TO  
 JAMES OTIS' ELEMENTARY SCHOOL BUILDING  
 U.S GRANT DISTRICT PARIS AND MARION STREETS EAST BOSTON  
 DESMOND & LORD ARCHITECTS  
 15 BEACON STREET BOSTON



THIRD FLOOR PLAN

012345678 12 16 20 24 28  
 SCALE  
 ⊕ INDICATES TEACHER'S DESK  
 — " " WAY PUPIL'S FACE  
 - - - " " BLACKBOARD



of working drawings and specifications; he shall submit the preliminary studies to the Board not later than fifteen (15) days after the receipt by him of the plan of the site on which the building is to be erected;

(b.) Is to make upon the basis of said preliminary studies one complete set of working drawings in ink on tracing cloth, floor and framing plans, sections and elevations at one-eighth scale, plumbing drawings and such detail drawings on a larger scale as are necessary to explain the specifications; he shall submit the complete, finished drawings and specifications not later than ninety (90) days after the acceptance of the preliminary study by the Board;

(c.) Is to furnish one complete typewritten set of specifications for everything, including plumbing, to be furnished or done in constructing the building, except the domestic engineering, and is to revise and correct the printer's proofs;

(d.) Is to cause the drawings and specifications furnished by him to conform to all regulations of law and public authorities, and to be in accordance with established methods of building construction, faithfully carry out all the foregoing provisions, use all proper knowledge, skill and care therein, and be accountable for any failure so to do.

(e.) Is to loan to the Board, to make blueprints therefrom, the said set of working drawings;

(f.) Is to restudy, and if necessary redraw, without charge, any or all of said drawings and specifications, if the lowest bid for doing the work in accordance therewith overruns the limit of cost agreed upon by the Architect and the Board;

(g.) He shall have the certification of a Construction Engineer approved by the Board for the construction plans and details; and then shall make application for a building permit to the Building Department on a form signed by the chairman of the Board, and deliver to the Building Department two sets of such blueprints from the said set of working drawings as may be required by the Building Department (the Board furnishing specifications to the Building Department);

(h.) Is, upon the signing of contract, to deliver to the Board, to remain their property, two sets of cloth blueprints taken from the said set of working drawings, a perspective drawing of the exterior of the building and such floor plans as the Board may request suitable for reproduction, and at the conclusion of the work a complete set of working drawings on tracing cloth, either the set previously referred to or a copy therefrom, which shall be corrected to agree with and embody all changes made during construction;

(i.) Is to have general supervision of the domestic engineering and be the Architect of all other work to be done under any written contract for the construction of the building, and render the full usual Architect's services and supervision for such other work;

(j.) Is, in the form prescribed by the Board, to make all estimates and allowances for payments under any contract in which he is made the Architect of the work, and such estimates for the domestic engineering are to be accompanied by certificates of said Engineers as to their accuracy, subject to approval of the Board;

(k.) Is to advise with the Board on any changes in the building contemplated by the Board, and is to order changes when required by the Board so to do;

SECT. 3.—(a.) The city, as full compensation for the services aforesaid, is to pay the Architect  $2\frac{2}{3}$  per cent upon the cost of the domestic engineering, exclusive of plumbing, and 6 per cent upon the cost of all other work;

(b.) Payments to be made as follows: Three and three-fifths per cent upon all contracts other than those for domestic engineering is to be paid on the signing of such contracts, and thereafter  $2\frac{2}{3}$  per cent upon the value of the materials and labor, as specified in each estimate for payment under the contract, is to be paid on the making of the estimate, until the full payment aforesaid is made, and if any thereof remains unpaid at the completion and final acceptance of the work, it is then to be paid. When preliminary studies are completed, the value of the Architect's services to date shall be reckoned one-sixth of the estimated total commission; when working drawings and specifications are ready for contract, if for any reason the signing of contracts is delayed, the value of his services to date shall be reckoned at  $3\frac{1}{2}$  per cent of cost based on allowance for building given by the Board to the Architect. If the Board discontinue the services of the Architect at any intermediate stage the value of his services shall be reckoned proportionately. Five per cent on cost of domestic engineering, exclusive of plumbing, and 10 per cent on other work will be paid to Architects on all changes and alterations made within or to existing buildings. Additions and extensions made outside of such buildings to be regarded as new work and the commission to be reckoned on that basis.

SECT. 4.—When for any reason other than those stated in section 2, paragraph (f.) above, the Board shall set aside the whole or any part of an Architect's studies, drawings and specifications while retaining him to prepare corresponding new studies, drawings and specifications for the same school building, the city shall pay the Architect for the work thus set aside a sum not exceeding twice the actual cost of draughting, and the new work shall be paid for on a commission basis, as stated in section 3, above. Payments for all work thus set aside under this section shall be made at the discretion of the Board.

SECT. 5.—In the above agreement the term "building" is used to define not only the structure itself but all work in connection with it committed to the Architect by the order of the Board, as fencing, grading, roads, walks, planting, decorative painting and sculptural decoration.

The Architect will further render all services of any kind mentioned in the contract executed for the construction of said school buildings and incidental to or necessary for the performance thereof, until the builder shall be released from all responsibility in respect thereof.

The Architect will not order any variations or extras without the sanction of the Board of Schoolhouse Commissioners in writing, nor in any way exceed his authority as laid down in the building contract.

No rule of any society or any custom of engineers, architects or surveyors shall be binding on the party of the first part.

In witness whereof, the said \_\_\_\_\_ hereunto set their hand and seal, and the City of Boston has caused these presents to be signed by the chairman of the Board of Schoolhouse Commissioners, hereunto duly authorized, the day and year as above written.

CITY OF BOSTON,

By

BOARD OF SCHOOLHOUSE COMMISSIONERS.

.....  
Chairman.

.....  
Architect.

Approved:

Mayor.

Form of Contract Approved:

*Corporation Counsel.*

## APPENDIX IX.

## GENERAL INFORMATION AS TO STANDARD REQUIREMENTS FOR SCHOOL BUILDINGS AND YARDS.

## YARDS.

(1.) *Grading*.—Grade the yards as determined after consultation with the commissioners.

(2.) *Fences*.—Provide fences, planting, etc., as determined after consultation.

(3.) *Gates*.—Provide the gates in fences inclosing the yards with hasp and staple to receive the Department Standard yard padlock, which will be furnished by the Department outside of the general contract.

(4.) *Play-yards*.—Play-yards located on the sunny side of the building are desired and approximately 30 square feet per pupil should be provided. Play-yards are to be paved with hard-burned bricks, laid flat in sand and sloping at proper grades to catch-basins connecting to sewer.

(5.) *Walks*.—Pave the walks and approaches with hard-burned brick laid flat in sand.

(6.) *Curbs*.—Curbs forming borders may be paved with brick laid on edge. Bull-nose brick may be used for curbs.

(7.) *Sidewalks*.—Sidewalks for public use outside of the lot line and curbs for same are to be included in general contract for building as an allowance.

(8.) *Basement Entrances*.—Separate entrances are to be provided for boys and girls from their respective yards to the play-room. Areas, steps and inclines are to be avoided wherever possible. A separate entrance for janitor to boiler-room may be provided. A proper entrance for coal and exit for ashes should be provided.

(9.) *Driveways*.—Driveways such as for coal and ash teams are to be paved with vitri-



fied pavers laid at the proper pitches, and in cement mortar on a sufficiently thick concrete base.

(10.) *Flagstaff*.— Provide a flagstaff 20 feet long extended from a wall of the building with halliards, truck, etc., complete.

NOTE.— All the above items except as noted to be included in the general building contract.

#### ELEMENTARY AND JUNIOR HIGH SCHOOL.

*In General*.— Elementary schools are subdivided into upper and lower. Lower includes Grades I., II. and III., and are to have 12-inch by 18-inch desks. The buildings for the lower grades are to have besides the class-rooms required, rooms for teachers, nurse, book storage and emergency closets. Sufficient storage room for supplies, etc., shall be provided in the basement. The upper elementary buildings are to contain Grades IV. to VIII., inclusive, and are to have besides the class-rooms required an assembly hall and rooms for master, teachers, nurse, book storage and emergency closets.

Grades IV., V. and VI. are to have 15-inch by 21-inch desks and Grades VII. and VIII. are to have 16-inch by 23-inch desks.

Junior High School rooms are to have 20-inch by 26-inch desks.

Desks are to be spaced according to standard seating plan.

#### THE BUILDING.

The building will be either "Lower Elementary," "Upper Elementary" or "Upper Elementary and Junior High," as above mentioned. This will be determined by the commissioners, who will act as an intermediary between architects and the school authorities and committee. Relations between commissioners, architects and contractors to be as defined by a contract. Commissioners are to determine the type of construction of the building.

*Orientation*.— It is desired to place the building so that each class-room should receive sunlight during some portion of the day.

*Setting*.— Set the building above grade so that the play-rooms are well lighted and entrances are provided into basement play-rooms as before mentioned. (See Basement Entrances.) Boiler-room floor wash to drain direct to sewer wherever possible.

*Heat and Vent Flues.*— To be of galvanized iron or masonry, as determined by the commissioners. If of masonry, to have joints neatly struck and the inner surface fairly smooth.

*Fireproofing.*— Doors for boiler-room and coal-pocket to be metal covered. Boiler-room doors to be self-closing. Closets should be provided for electrician as needed for batteries, switch boards, etc.

A paper burner should be provided in connection with the boiler room as directed.

Bulletin boards should be included in general contract.

LOWER ELEMEN- This type of building, in addition to the  
TARY. foregoing requirements, is to have kindergarten room where so directed by commissioners.

UPPER ELEMEN- This type of building, in addition to the  
TARY. requirements for the lower elementary, should contain an assembly hall with its necessary rooms, and a master's room with waiting room, if so directed. Rooms for cooking, manual training, etc., are to be provided when called for by the commissioners.

JUNIOR HIGH This type of building includes rooms for  
SCHOOL. first year high school and upper elementary schools, and except for certain large class-rooms is practically the same as upper elementary building.

SCHOOL-ROOMS. (1.) *Size* will be 23 by 29 for lower and upper elementary grades, 26 by 32 for junior high and not less than 12 feet high in clear. Modification allowable only after consultation with the Board. Desks should be laid out on the preliminary plans. (See drawing.) Every class-room shall be consecutively numbered on the plans to designate it. These numbers to be for the doors, as noted below, and for the annunciator. Other rooms that appear on the annunciator to be named on the plans, as assembly hall, teachers' or master's room, cooking room, manual training room. The kindergarten shall be counted as a class-room. In high schools, both class and recitation rooms to be numbered, other rooms named.

(2.) *Windows* will be on the long side for left-hand lighting. The glass measured inside the sash shall contain not less than one-fifth of floor area; neither double run of sash nor double glazing nor weather strips will be



required, the head square and close to the ceiling; the sill about 2 feet 6 inches from the floor where a gravity indirect system of heating is installed and 2 feet 11 inches where there is to be a plenum system; the windows divided with muntins, no large sheets of glass. Finished with plastered jamb, metal corner bead, without architrave.

(3.) *Doors*.—One to corridor, 3 feet 6 inches by 7 feet, partly glazed, to open out, placed preferably near the teacher's end; all as per standard details (two doors may be desired under certain conditions); brass-plated, ball-bearing steel butts, 4-lever mortise lock, master keyed; cast brass knobs, marble flush thresholds to corridors for first-class construction. Doors to have 2-inch plain enameled bracketed number plates, cardholders,  $3\frac{1}{2}$  inches by 5 inches, and hooks to hold open.

(4.) *Floors* will be maple.

(5.) *Walls* will be painted burlap up to top of blackboards, or of tack boards, and above this plaster tinted in water-color,—a warm gray green or buff gives the best results,—the blackboards 4 feet high, 2 feet 2 inches from floor in kindergarten, 2 feet 4 inches to 2 feet 6 inches in Grade IV., and 2 feet 8 inches in Grade V. to VIII.; behind the teacher and on the long side. These will be of best black slate  $\frac{1}{4}$  inch thick. At end, in place of blackboard, soft wood sheathing with cork carpet securely attached to it for a tack board, to extend from base to the moulding at top of blackboards, to have wood strips to cover tacks. In lower grades a card rack is required above the blackboard only. A picture moulding at top of burlap and also near ceiling in all rooms. (See drawings.)

(6.) *Ceilings* will be level, plaster tinted a light cream color. Ceiling angles square.

(7.) *Artificial Light*.—Nine stiff pendent, 60-watt electric fixtures on three switches. No gas.

(8.) *Heating and Ventilation*.—The inlet for heat about 5 square feet, the outlet for ventilation about 5 square feet.

(9.) *Bookcase*.—Provide a bookcase in any convenient position, about 5 feet 9 inches long; upper doors fitted with cylinder locks,

and latch and knob; drawers fitted with locks and small brass pulls. Lower doors to have knobs and cylinder locks; same lock in each bookcase; all bookcase locks master keyed. (See drawing.) Special equipment for care of books where school is held day and evening is desired, similar to that existing at the Charlestown High School, so that the books of the day pupils will be put away in pigeon-holes, leaving the desks free for evening use.

(10.) *Teacher's Closet*.—Provide a small closet for teacher's coat and hat, preferably opening from the class-room, but allowable from the wardrobe, closet to have about 6 hooks and one shelf.

#### FRESH-AIR ROOMS.

The School Committee is responding to the more general demand for fresh-air rooms for children who are anæmic or of tubercular tendencies. At present all that the Board is advising to meet this new demand is that a sunny room, preferably a corner room, be chosen for this work, and that the windows on one or on two sides be made casement, to open out, or as the Board may direct; and that the heat be largely direct, so that the temperature can be quickly raised, if necessary, when the windows are closed. Otherwise these rooms will be the same as other class-rooms.

#### WARDROBES.

(a.) (1.) *Size*.—Wardrobes will adjoin school-rooms and be from 4 feet to 6 inches to 5 feet wide in the clear; 6 feet where compartments are used. The Board is to be consulted as to the type of wardrobe, as in certain cases they may prefer the approved standard type of Chicago wardrobe.

(2 and 3.) *Windows and Doors*.—Outside light, two doors, both connecting with school-room, and not to corridor, and having no thresholds. Doors, double swung, 2 feet 6 inches wide, brass double-acting butts, foot and hand plates, hooks or adjustable stops to hold open, ventilation under door farthest from vent.

(4.) *Floors*.—Maple. For all cases, to have a drip gutter for umbrellas, lined with heavy zinc, all joints soldered and tight.

(5.) *Walls*.—Painted burlap to a height of 7 feet, poles on brass-plated iron brackets with hooks under and pins over, 44 in number; umbrella clips and drip gutter below. (See drawing.) Walls above, plaster, tinted. Height

of lower pole, kindergarten, 30 inches from floor; lower grades, 36 inches to 40 inches; upper grades, 44 inches, 48 inches and 52 inches; distance between poles, 8 inches for elementary, 12 inches for upper grades. Pins and hooks, 6 inches to 12 inches on centres for elementary and 16 inches to 18 inches for upper grades. Each hook to have a painted number  $1\frac{1}{4}$  inches high.

(6.) *Ceiling*.—Plaster, untinted.

(7.) *Artificial Light*.—One stiff pendent, 40-watt, electric fixture. Switch in classroom.

(8.) *Heating and Ventilation*.—Heating, direct. Ventilation, vent duct,  $1\frac{2}{3}$  square feet area cross section.

#### CORRIDORS AND VESTIBULES.

(1.) *Size*.—Not less than 8 feet wide for four rooms on a floor; not less than 10 feet for over four rooms, governed by length, access to stairs, etc.

(2.) *Windows*.—Outside light essential. Where necessary provide windows through class room walls over the blackboard moulding.

(3.) *Doors*.—Main outer doors to open out, heavy butts, standard, master keyed, school lock; lock set to be furnished by the department but set by the contractor; door check; heavy hooks to hold open. Vestibule doors open out, heavy butts, pulls, push plates, hooks to hold open, door checks, no locks. Other doors to basement open out, and fitted with mortise lock with knob on inside only. Other hardware as above. All outside doors to be  $2\frac{1}{4}$  inches thick, and to be made solid, no veneer.

(4.) *Floors*.—Terrazzo divided into areas not to exceed 80 square feet, by set joints, and to have terrazzo or marble base for first-class construction. Wood floor and base second-class construction.

(5 and 6.) *Walls and Ceilings*.—A light, glazed brick, untinted walls and ceilings. If walls of common brick, to have smoothly struck joints and painted; if walls of plaster, to have burlap 7 feet high — painted. Put picture moulding at ceiling in corridors if plastered.

(7.) *Artificial Light*.—Stiff pendent electric fixtures, 40 or 60 watt, for corridors and vestibules, and one-light brackets for stairway, also gas for emergency in corridors, on stairs, and in vestibules.

(8.) *Heating and Ventilation.*—Heat direct, supplemented by foot warmers on first floor. Ventilation where possible.

(9.) *Sinks and Closets.*—On each floor above the first, one or two 4-foot sinks, with 4 fountains and 1 faucet.

#### STAIRCASES.

(1.) *Number and Arrangements.*—Determined by the Board, and not over 5 feet wide or less than 4 feet wide in the clear.

(2.) *Material.*—The treads, North River stone on iron string, or concrete construction with granolithic surface for first-class construction. Rails of a simple pattern, easily cleaned; wall rails are desired.

(3.) *Steps.*—Rise about  $6\frac{1}{2}$  or 7 inches, treads about  $10\frac{1}{2}$  inches. Rail not less than 2 feet 8 inches on runs and 3 feet on landings.

(4.) *Exits.*—Exits from the lower landings of stairs are desired. These may have emergency bolts where so desired. Fire escapes may be desired when recommended by the Building Department and after consultation with the Board.

#### SANITARIES.

(1.) *Size.*—General toilet-rooms in basement, in size approximating space for  $1\frac{7}{8}$  water-closets for each school-room, *i. e.*,  $\frac{5}{8}$  boys and  $1\frac{1}{4}$  for girls, and 33 inches of urinal for every school-room, arranged for convenient supervision and circulation. Slate sinks, length from 10 inches per class-room in small buildings to 6 inches per class-room in large buildings, located preferably in the play-rooms. The above refers to mixed schools.

(2.) *Windows.*—Ample outside light; glazed where exposed to view outside with ribbed glass; to have wire guards.

(3.) *Doors.*—The doors arranged “in” and “out,” with spring or door check and stout brass hooks to hold open; glazed with ribbed glass; half doors to water-closets.

(4.) *Floors.*—Asphalt. Boys’ drained to urinal, girls’ to floor washes.

(5.) *Walls.*—Salt-glazed brick or other nonporous inexpensive surface, 7 feet high; above, brick painted and enameled.

(6.) *Ceiling.*—Untinted plaster or white-washed concrete. Basement ceiling need not be furred level for first-class construction. For second-class construction ceiling should be plastered.



(7.) *Artificial Light*.— Ceiling or short pendent electric fixtures.

(8.) *Heat and Ventilation*.— Heat direct. Ventilation through water-closets and space back of urinals, allow 10 square inches local vent for each water-closet and 8 square inches for each lineal foot of urinal.

PLUMBING FIX-  
TURES.

(1.) *Water-closets*.— The pupils' water-closets for elementary schools are wash down closets; siphon action; upper classes, 16½ inches high; lower classes; 13½ inches high. Teachers' same with raised rear vent 16½ inches high. (See drawing.)

(2.) *Partitions*.— To be  $\frac{7}{8}$ -inch slate, supported at ends with iron pipe about 8 feet high, tied together and to the wall, to which doors are hung. Back partition of water-closets to be slate. (See drawing.)

(3.) *Urinals*.— The urinals will be of slate, floor slab, trough and back, with partitions where requested, flushed automatically from special tank, through  $\frac{7}{8}$ -inch perforated pipe, with cold water; vented at bottom into space behind. (See drawing.)

(4.) *Sinks* of black slate, two self-closing cocks, and jet drinking fountains, set 20 inches on centres. A sink is desired for janitor unless there is one near by.

(5.) *Floor Washes* in sanitariums and play-rooms as already mentioned. (See drawing.)

(6.) *Piping*.— (a.) Cast iron must be laid on good footing in basement, clean-outs at every change of direction. Soils and vents exposed as far as possible, no asphaltum, red lead and three coats of paint.

(b.) *Supplies*.— Exposed as far as possible; where covered may be plain brass, elsewhere polished brass; nickel plate where desired. Hot water for janitor's use in basement, cooking-room, pupils' sinks, and for master's, nurses', and teacher's rooms. Supply from boiler and from summer boiler, if any, or from an independent hot water heater. No auxiliary supply wanted for water-closet tanks.

(c.) *Fire Lines*.— In building three stories high or over one or more lines of 3-inch pipe if requested by the Board.

PLAY-ROOMS.

All free basement space to be arranged as play-rooms for boys and girls. Walls to have dust proof, salt-glazed brick to a height of 7 feet and of selected hard brick above painted

with cold water paint, granolithic floors, plaster ceilings or white-washed concrete. Basement doors and windows to have wire guards in channel iron frames; guards to be hinged and padlocked. Doors are desired from the play-rooms to the play-yards. Areas at doors are not desired.

MASTER'S AND  
TEACHERS'  
ROOMS.

(1.) In each school of the upper grades a room of about 240 square feet for the master, with a water-closet and bowl and a book-closet adjoining. This room should be near the centre of the building, *i. e.*, on the second floor, in a three-story building. In all schools a room or rooms for teachers, averaging about 300 square feet for ten teachers, with water-closet and bowl. Doors to be clearly marked "Master" or "Teachers" in painted letters and one water-closet and bowl on each floor of six rooms for teachers' emergency.

(2.) Where men as well as women are teachers, provide a separate room with toilet accommodations for men.

SPECIAL ROOMS.

ASSEMBLY  
HALLS.

Assembly halls should accommodate from 400 to 800 as the Board may direct. It is not considered necessary to seat the full number of pupils in schools of greater capacity. The floor to be level and of wood like class-rooms. The windows to be fitted with rebated mouldings to take opaque shades, and so designed as to make the operation of shades practical and simple. (See department standard detail.) The platform should be capable of accommodating one, or, in the large schools, two classes. Galleries may be used where the hall is two stories in height. Anterooms near the platform are desirable. A dignified architectural treatment of the walls and a studied color scheme for walls and ceiling shall be submitted to the Board for approval. The lighting, acoustics and exits should be such as belong to a small lecture hall. Artificial lighting to be under control from at least two points, one of which must be near an exit. Electric outlet for 30-ampere projection lantern, 25 feet from curtain. Provide recess in ceiling over platform for spring-rolled curtain 13 feet long. For assembly hall an allowance in cubing is made by the Board of two class-rooms for



MANUAL  
TRAINING  
ROOMS.

schools of medium size, that is, about sixteen class-rooms, and four class-rooms for schools of larger size, *i. e.*, over sixteen class-rooms, to represent the added area for this purpose.

(1.) *Size*.—Room, generally located in basement, if floor can be above grading, should be approximately 900–1,000 square feet, preferably a corner room, and the larger of the two allowed sizes of rooms, and arrangement shown by drawing, for number of benches there given, 25. In elementary schools for boys 22 benches are sufficient.

If in basement this room is not to be counted as one of the class-rooms.

(2.) *Light*.—The windows should be as near full length as possible and on two sides. Artificial light in stiff pendent electric fixtures, one light to every four benches.

(3.) *Floors*.—Of wood.

(4.) *Walls*.—A basement room should be finished as a shop; salt-glazed brick up to 7 feet where exposed, and above blackboard brick walls painted with cold water paint. If above basement, finished as a class-room.

(5.) *Ceilings*.—Like basement.

(6.) *Heating and Ventilation*.—The same as in class-rooms. If in basement provide some direct radiation.

(7.) *Fittings*.—(a.) *Stock-room*.—Stock-room should contain at least 80 square feet, preferably rectangular. Eighteen-inch shelves should run around the room, 5 feet 6 inches and 6 feet 6 inches from the floor.

(b.) *Wardrobes*.—Wall space for 26 double coat and hat hooks, in a separate room.

(c.) *Teachers' Closets*.—Teachers' closet should be small for personal belongings, with shelf and hooks under.

(d.) *Storeroom*.—For finished work and hardware should be fitted with all shelving possible; an area 40 square feet is adequate.

(e.) *Bookcases*.—Like those in class-rooms, 150 capacity.

(f.) *Sink*.—A 3-foot soapstone sink, with hot and cold water, with drinking fountain if desired.

(g.) *Display Frames*.—Four display frames, size and position as indicated, of cork carpet over soft wood back, with 2-inch moulding around.

(h.) *Demonstration Steps*.— Demonstration steps are desired.

(i.) *Furniture*.— (Not included in the building contract.) The furniture comprises 25 benches and stools, teachers' desk, table, 4 feet by  $2\frac{1}{2}$  feet, with unfinished top, 1 desk chair and 2 common chairs, a clock. (See drawing.) Lay these out on preliminary drawings. Lower benches to be set toward the front and nearer the windows.

(j.) *Blackboards*.— Provide about 15 running feet of slate blackboards, 4 feet high.

(k.) *Glue Pot*.— Provide electric or gas connections for same.

#### COOKING-ROOM.

(1.) *Size*.— Should have an area of 900–1,000 square feet, preferably a corner room on top floor, but generally in basement, and the larger of the two allowed sizes of room, and arranged for 24 stations. If in basement this room is not to be counted as one of the class-rooms.

(2.) *Light*.— Windows as in a class-room, if located in a corner, from two sides. Artificial light as in a class-room.

(3.) *Walls*.— Above basement, similar to school-rooms, blackboards, 4 by 10 feet, back of teacher's desk. Walls painted in oils. A basement room shall have salt-glazed brick walls up to 7 feet and painted brick above. (See drawings.)

(4.) *Floors*.— The floor to be wood, except space occupied by ranges, which is tiled.

(5.) *Ceilings*.— Ceilings like basement, or, if above basement, like class-rooms.

(6.) *Heat and Ventilation*.— Less heat is required than in a class-room, but the ventilation should be the same, with additional vent from the demonstration ranges. Hoods over ranges if Board so desires.

(7.) *Fittings*.— (a.) *Wardrobes*.— Provision for 24 pupils, double coat and hat hooks in separate lighted closet, and teacher's small closet.

(b.) *Work Benches*, accommodating 24 pupils, fitted with compartment for utensils, bread-board, etc., a special gas burner with a hinged iron grille over it, set on aluminum plate at each station; benches arranged in the form of ellipse, or oblong, with access to centre from two sides; top of pine 24 inches wide;

open underneath and supported on pipe standards. One section detached and fitted as a demonstration bench; a clear space of 4 feet all around. Dining table (furnished under another contract) is to be set in centre. (See drawings.) Lay these out on preliminary drawings and include in final drawings and contract.

(c.) *Dresser*.—Ten feet long in 3 sections, 4 adjustable shelves and glazed sliding or hinged doors at top; one set of 3 drawers and 2 cupboards on lower part. A shelf should be put in each cupboard about 12 inches from top.

(d.) *Fuel-box*.—In 2 compartments, each about 24 inches square and 30 inches deep, with hinged lids; small shelf in one section. Accommodations in the main coal-room for a supply of range coal and kindling wood.

(e.) *Bookcase*.—Similar to those provided in class-rooms.

(f.) *Sink*.—Soapstone, 4 feet long; 2 cold and 2 hot water cocks; soapstone drip shelves, 24 inches long, at each end of sink, provided with grease trap. Sink should be near ranges.

(g.) *Hot Water Supply*.—(See instructions in plumbing.)

(h.) *Coal and Gas Ranges*.—A six-hole coal range and a similar gas range, with hood provided, and set on a hearth previously mentioned.

(i.) Outlet for electric cooking apparatus.

(j.) *Refrigerator*.—Location to be shown. Furnished under another contract.

#### SEWING-ROOM.

The following is a list of standard equipment adopted by the School Committee.

(Not to be included in the general contract for building.)

30 Portable tables (inserted yard measure).\*

50 Chairs in girls' school,\*  
and

30 In mixed schools, varying in height from 14 inches to 21 inches from floor.\*

1 Glass show case about 8 feet long, 2½ feet or 3 feet wide.

1 Cutting table, 8 feet long, 3 feet wide and 2 feet 6 inches high, inserted yard measure, 3 drawers in table, black boards, minimum of 30 square feet.

Closet for teachers' wraps.

Stationary washbowl with running hot and cold water.

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\* Not required when no regular "sewing room" is available.

1 7½-lb. electric iron.

1 4-lb. electric iron.

Standard box rack with box for each girl. (See drawing.)

1 Sewing machine for 500 or fewer girls.

**KINDERGARTEN.** (1.) *Size.*—The rooms can be contained in the space of class-room and wardrobe, but a slightly larger area 800 to 900 square feet, as desirable, and preferably the larger of the two allowed sizes of room. They comprise a large room, a small room, a supply closet, a wardrobe and a water-closet. The large room should take a 16-foot circle, regulation lines painted on the floor with at least 4 feet all round it. (See drawing.) The small room, about 200 square feet.

(2.) *Light.*—Windows should be as in a class-room, if on a corner, on both sides. Exposure should be sunny. Artificial light of the class-room type arranged for the different rooms.

(3.) *Doors.*—Door to corridor as in class-rooms. Wide doors should open from small room into large room.

(4.) *Floors.*—Wood, with painted lines as above.

(5.) *Walls.*—As in class-rooms, with black-board as in lower grades.

(6.) *Ceilings.*—As in class-rooms.

(7.) *Heat and Ventilation.*—As in class-rooms.

(8.) *Fittings.* (a.) *Wardrobe.*—Hooks for 60, arranged as in ordinary wardrobes.

(b.) *Teachers' Closet.*—For clothing of two or three teachers.

(c.) *Toilet-room.*—Immediately adjoining with low-down seat and bowl or sink.

(d.) *Bookcase.*—As in lower grades.

**NURSE'S ROOM.** (1.) *Size.*—From 200 to 400 square feet, according to size of school.

(2.) *Windows.*—Outside light as in class-rooms.

(3.) *Shades.*—Set to roll from window-sill upward. Not in building contract.

(4.) *Doors.*—One door to corridor, as in class-room, marked "Nurse's Room."

(5.) *Walls.*—Upper two-thirds plaster, smooth finish, round corners, painted with light green oil paint. Lower one-third to floor, glazed white tile with sanitary base.



(6.) *Floor*.—Terrazzo, like corridors for first-class construction.

(7.) *Heat and Ventilation*.—As in class-rooms.

(8.) *Artificial Light*.—Stiff pendent, 100-watt electric fixture with special shade. Wall receptacle for hand portable.

(9.) *Nurse's Closet for Supplies*.—Size, 3 by 4; one-shelf; 6 hooks for clothing.

(10.) *Bath Tub*.—Five-foot porcelain enameled iron, hot and cold water, where so directed by the Board.

(11.) *Bowl*.—Vitreous ware, hot and cold water faucets with shampoo cock. Hot water must be available all the year.

(12.) *Stove*.—Gas or electric heater.

(13.) *Fittings*.—(Not in building contract.)

(a.) *Cabinet*.—Oak finish medical cabinet, adopted as standard by Schoolhouse Commission. (b.) *Stool*.—White enamel revolving stool. (c.) *Table*.—Dressing table, white enamel frame, glass top and shelf; size, 16 to 20, rubber crutch tips. (d.) *Filing Case for Nurse's Records*.—Oak finish, to hold 1,000 cards, 4 by 6; lock and key; guide cards. (e.) *Writing Table*.—Oak finish with drawer and lock; size, 20 by 30. (f.) *Chair*.—Oak to match table. (g.) *Couch*.—Flat frame oak, canvas adjustable top. (h.) *Mirror*.—Size,  $2\frac{1}{2}$  by 3, set over bowl.

#### HIGH SCHOOLS.

#### CLASS-ROOMS AND RECITA- TION-ROOMS.

High school class-rooms are laid out for classes of thirty-six or forty-two, generally the latter. A room 26 feet by 32 feet will accommodate forty-two high school desks. The larger class-rooms are to accommodate from sixty to eighty pupils; the larger number can be accommodated in a room 33 feet 8 inches by 43 feet. Recitation-rooms, which to a certain extent will be used also as class-rooms, should be about 16 by 26. These rooms, if equipped with continuous desks and seats as in a lecture-room, or with double desks, such as are used in the Charlestown High, would accommodate about thirty pupils each. Lay out desks in one room of each type on preliminary plans.

**ASSEMBLY HALL.** For a high school would not differ materially from that already described for elementary schools, except that provision shall be made for a moving picture booth.

**MASTER'S AND TEACHERS' ROOMS.** For accommodation of the principal there should be an outer office, that is, a waiting-room or reception-room, and an inner office, and rooms for both men and women teachers which might well be concentrated in the neighborhood of the reception-room and the principal's room.

**CHEMISTRY.** *The Rooms in General Required.* Laboratory, separate from lecture-room, may be used as recitation-room, but better to use lecture-room and keep laboratory free from desks and demonstration table. Lecture-room, separate from laboratory, but easy of access, may be used for recitation; in that case should have facilities for demonstration. Combined lecture-room for physics and chemistry admissible. Three rooms for administration purposes, store-room for dry chemicals and apparatus, room for storage of liquid chemical and preparation of reagents, which may also be used as a teacher's laboratory and an office. The total area of the laboratory and administration rooms should be about 1,200 square feet and of the lecture-room about 600 square feet.

**CHEMICAL LABORATORY.** (1.) *Size.*—Should accommodate a class of forty to fifty pupils, with apparatus. Accommodation for three such classes.

(2.) *Light.*—On two sides.

(3.) *Heating and Ventilation.*—On same basis as for class-rooms, but removal of gases should also be provided for by a hood, each compartment of which should be ventilated by 9-inch hole at top, venting into elbow or T of drain pipe, thence connected by drain pipe into main flue, in which should be a fan operated by a motor.

(4.) *Walls and Ceilings.*—Walls of brick ideal, but not generally feasible, except on outside walls; plaster walls painted in oils and ceiling of plaster, covered with water-resisting surface containing no lead. All woodwork to have natural finish, except tops of desks.

(5.) *Floor.*—May be of hardwood in narrow strips, filled in by asphalt; should slope



very slightly between desks, interspaces again trending to common corner, which may be drained.

(6.) *Equipment.*—Working desks at right angles to greater length of room, in sections back to back between windows; sections movable when top is removed. Each section 21 feet to 24 feet 6 inches long, 2 feet wide, 3 feet to 3 feet 2 inches in height. Distance between double sections about 5 feet, same distance at least between ends of sections and hood, which should be opposite longer line of windows and at right angles to direction of desk sections. Other ends of sections near enough to wall to allow for drain at right angles to sections and under windows. Desks to be of ash or any durable wood, natural finish. Top of narrow pine strips, treated with aniline black and waterproof lead finish. Individual desks provided with 3 lockers and 3 sets of drawers each, each set of drawers operated by bar from locker, combination lock to fasten locker. Each double section of desks provided with soapstone sink, placed between sections and flush with section top, which should slope slightly to sink.\* Sink 8 inches wide at least, and should begin within 1 foot of the pen, toward hood, depth here to be 6 inches, running nearly to other end, where depth should be 8 inches. Each pupil to have working space of 3 feet 6 inches by 1 foot 8 inches. Each double section of desks provided with shelf for reagents, running length of desk, 10 inches to 12 inches above desk, supported by metal standards at suitable intervals, of whitewood,  $1\frac{1}{4}$  inches thick, 9 inches wide, natural finish, covered with glass plates,  $\frac{1}{4}$  inch thick, 9 inches wide, suitable lengths, clamped to wooden shelf with as few clamps as possible. Wooden shelf at free end of each section, 1 inch to  $1\frac{1}{2}$  inches thick, 3 feet to 4 feet long, not over 1 foot 3 inches wide, height of 2 feet 8 inches to 2 feet 10 inches, for holding blast lamps, reagent jars, etc. Finish off top of shelf in aniline black. Floor space under second row of windows taken up with line of extra desks, built like sections, furnished in

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\* Individual sinks are preferred by the teachers, although the long trough is apparently adequate for teaching elementary chemistry, and is less expensive.

similar way, but without necessarily a drain to be used for emergency or general utility. Wall space not otherwise occupied may be used for shelves or cabinets. Fixed slate blackboards at end opposite second set of windows and parallel to desk sections, sliding slate blackboards above hood. Liquid waste may be thrown into desk sink, dry waste into earthen jars. Hood should run at right angles to desk sections and along wall opposite free ends of sections. In the construction of hood, protection against fire should be considered. Should be built against brick wall. Floor of hoods to be slate; wood, inside and outside, to be finished natural. Space divided into three or four compartments, closed by sliding windows. Space against wall not occupied by hood for general sink.

(7.) *Gas*.—Lead from gas main at free end of centre of double desk sections, branch into two leads along back of each section. Take-offs between each working desk space in form of pillar with two  $\frac{1}{4}$ -inch cocks, at each end desk a single cock. Two  $\frac{1}{4}$ -inch gas nipples at each side of each compartment of hood. Cocks of these outside of hood. Wall desk fitted with single gas taps at intervals of two feet.

(8.) *Water*.—Lead from water main at free end of centre of double desk sections. Size, large enough to fill section sink rapidly. Lead of ordinary size along length of section underside of shelf, take-off at free end of section, to which blast and suction pump may be attached. At junction of each four working desk spaces take off, carrying two valves with hose bibb delivery  $\frac{1}{4}$ -inch, the two valves or cocks facing opposite sides. Suction pump attached to these bibbs if desired.

(9.) *Drains*.—Section desk sink to have open drain and mercury arrester, into which should be set movable concave netting of wide mesh to arrest larger solid matter. Main desk drain at right angles to sections along and under windows, between windows and sections should be of heavy cast iron; may be supported on brackets against wall and left open, or covered and provided with movable top. Into this drain will drip the lead pipes coming from section sink. Slate floor of each hood compartment should deepen slightly in centre.

where there should be a hole 1 inch in diameter, into which is fitted short lead drain pipe, closed by perforated plug; drain pipes to be connected with sloping drain pipe, open or closed, running toward and delivering into general sinks.

(10.) *Electricity*.— Current of electricity on section desks need not exceed ten volts, may be supplied from source common to physical and chemical side. Plugs between each working space placed under desk top on frame.

LECTURE AND  
RECITATION  
ROOM.

(1.) *Size*.— Area to depend on number of seatings required or number of pupils in classes; should be large enough for two classes and should occupy a position between the laboratories for physics and chemistry.

(2.) *Light*.— As much glass area as class room, preferably from left. Fit windows and other openings admitting light with dark curtains as specified for Assembly Hall. Electric lighting from top, controlled at point convenient to demonstration table.

(3.) *Floor* stepped up in fireproof construction and finished in wood, like floor.

(4.) *Heating and Ventilation*.— As for classrooms, with extra ventilation to remove fumes. Space at left end of desk provided with register and flue of at least 10 inches diameter. Flue carried under floor to nearest wall, flue and draught actuated by motor if not sufficient.

(5.) *Equipment*.— Demonstration table, not less than 12 feet long, not more than 3 feet nor less than 30 inches wide, height 32 inches. Placed 4 feet distant from wall, material same as that of room, top made of pine plank and finished like chemical laboratory desks. Pneumatic sink at right hand of desk, of soapstone in two depths. Not to exceed 30 inches long, 20 inches wide. Depth, 4 inches to 6 inches minimum; 16 inches to 18 inches maximum. Length of minimum depth not to exceed 60 per cent of total length. Sink to be depressed in table and provided with flush cover. Sink to have screened drain with mercury trap and overflow. Supply hot and cold water under reduced pressure and cold water under street pressure for quick filling, 2 goosenecks with  $\frac{3}{4}$ -inch hose bibbs, to one of which combined blast and suction pump may be attached; steam supply direct from boiler main with a

by-pass to summer boiler; supply gas air suction, and gas taps not exceeding 6 in number. Over demonstration table, secured to ceiling, provide a plank with heavy screw hooks. Behind lecture table provide sliding blackboards of not less than 50 square feet, and canvas curtain on heavy spring roller for attaching charts. Drawers and fireproofed closets for lesser lecture apparatus and chemicals in body of table, wall on either side provided with shelves for reagent bottles under glass, and side wall provided with cabinets for larger pieces of permanent apparatus, if there is no special room for this. Lifting seats with desk for taking notes arranged on platforms, so that the successive tiers will rise one above the other to insure an unobstructed view of demonstration table. (See drawing.)

(6.) *Electricity*.—Provide three (3) forms of current, viz., primary or storage battery current variable by unit cells up to ten cells, direct current at 110 volts, 30 amperes and alternating current at 110 volts, 30 amperes. Provide regulating rheostat for the 110-volt direct current. Provide two 50-ampere ammeters, one a. c. and one d. c., and two 125-volt voltmeters, one a. c. and one d. c., all with extra large illuminated dials. Current to be brought to a special slate distributing panel upon which the rheostat and measuring instruments shall be mounted. Panel shall be located conveniently to table and so that instruments shall be in full view of class and instructor. Panel to be provided with suitable means for switching instruments to any circuit, and any or all circuits to table. Terminate table circuit in four 50-ampere d. p. s. t. knife switches on a slate panel under table. A projection lantern and receptacles for same at end of table and at rear of room. Lantern screen on spring roller at side of room, width of screen usually 12 feet, but dependent on distance and lenses used.

#### ADMINISTRATIVE FACILITIES.

(1.) *Apparatus Store-room*.—Should give ample space for storage of extra and reserve apparatus and original packages of stock chemicals. These should be kept in dust-proof cabinets with glass doors and in drawers.

(2.) *Preparation-room*.—This should adjoin the above. Primarily for storage of liquid



chemicals in bulk and preparation of liquid reagents and storage of supply bottles, also fitted for teachers' laboratory. Should have wide centre table with gas in centre, working desks, with drawers and closets along two sides, also gas, water, sink, blast, suction, steam and electricity. Shelves along desks for storage of liquid chemicals, supply bottles and smaller reagent bottles. An adequate hood should be provided.

(3.) *Office and Balance Room.*—Adjoining store-room and preparation-room should be small room to contain desk, book shelves, table and a good grade balance.

PHYSICAL  
LABORATORY.

(1.) *Size.*—In a space about 30 by 40 feet. A laboratory, apparatus-room and shop.

(2.) *Light.*—The same basis as for class-rooms, one wall having as direct a southern exposure as possible for *porte lumiere* studies. Artificial light as in a class-room. Dark curtains in addition to regular shades for darkening room. Windows and all openings admitting light fitted as specified for Assembly Halls (page 46).

(3.) *Heating and Ventilation.*—On same general basis as for class-rooms.

(4.) *Equipment.*—Small laboratory tables to accommodate two or four pupils at each, built of hard wood, white pine tops, fitted with 4 drawers, supports and adjustable cross-bar. Wall tables around room on sides where there are windows, with one or two shallow drawers under, but not deep enough to interfere with comfort of pupil. Soapstone drip sinks with cold water to be provided at these tables, one to every six or eight pupils. Instructor's table, fitted with hot and cold water, Richards' pump, numerous cupboards and drawers of various depths and widths. Two-inch plank bolted to ceiling over this table, with space of 2 or 3 inches between plank and ceiling for attachment of pendulums and other apparatus. Provide electric outlet for stereopticon and screen for same.

(5.) *Furniture.*—Provide adjustable stools for all the tables and a sufficient number of tablet arm chairs to accommodate the entire division during demonstration exercises. Chairs to be placed in rectangle formed by pupils' tables and demonstration table. These

are not in building contract, but to be laid out on preliminary plans.

(6.) *Electricity*.—Provide three (3) forms of current, viz., primary or storage battery current variable by unit cells up to ten cells, direct current at 110 volts, 30 amperes and alternating current at 110 volts, 30 amperes. Provide regulating rheostat for the 110-volt direct current. Provide two 50-ampere ammeters, one a. c. and one d. c., and two 125-volt voltmeters, one a. c. and one d. c., all with extra large illuminated dials. Current to be brought to a special slate distributing panel upon which the rheostat and measuring instruments shall be mounted. Panel shall be located conveniently to table and so that instruments shall be in full view of class and instructor. Panel to be provided with suitable means for switching instruments to any circuit and any or all circuits to demonstration table, pupils' tables or wall benches. Terminate demonstration table circuits in four 50-ampere, d. p. s. t. knife switches on a slate panel under table, and the other circuits in special polarized receptacles, or multiple series connection boards at each pupil's station.

(7.) *Gas*.—Pupils' tables to be equipped with gas, 4 cocks to each table. Wall tables to be equipped with gas. Demonstration table to be provided with gas.

(8.) *Bulletin Board*.—25 to 50 square feet of bulletin board, covered with cork carpet, secured at edges, glued on like wall paper.

(9.) *Blackboards*.—As much blackboard space as possible. Sliding blackboards back of demonstration tables.

#### APPARATUS ROOMS.

(1.) *Size*.—One large or several small rooms, to open directly out of laboratory, and connected with lecture-room.

(2.) *Equipment*.—To be fitted with dust-tight cases with adjustable shelves and sliding glass doors, 7 feet high; cabinets of drawers of various widths and depths, mostly narrow and shallow. Some of these cases may be in the laboratory if there is sufficient wall space. A small sink and hood should be provided.

#### SHOP.

A small shop is desirable, though not absolutely necessary. This should be equipped with work bench, motor-driven lathe and shelving for tools and stock, and may be set up in apparatus-room.



BOTANICAL AND  
ZOOLOGICAL  
LABORATORY.

(1.) *Size*.—In a space about 30 by 40 feet. Laboratory and apparatus-room.

(2.) *Light*.—Windows the same as for class-rooms, one wall with southern exposure. Artificial light as in class rooms.

(3.) *Equipment*.—(a.) Twenty-one pupils' tables, 54 inches by 24 inches by 30 inches high, each to accommodate two pupils, to have plate glass tops.

(b.) Soapstone sink, 72 inches by 30 inches, 10 inches deep, accessible on all sides. Supply with cold water, about 8 bibbs and 2 hose bibb cocks.

(c.) One aquarium, 30 inches long, 20 inches wide and 20 inches high, with supply, gooseneck cock with aspirator and standing waste.

(d.) Ice chest, 36 inches by 24 inches.

(e.) Botanical laboratory provided with Wardian case, inches long, inches wide and inches high, fitted with electrical heating apparatus automatically controlled by thermostat.

(f.) Cases built wherever practicable. Three sections to contain 42 pigeonholes, 3 inches by 3 inches by 8 inches, for storage of instruments. A liberal supply of cases to contain drawers and cupboards in lower compartments, and shelves above, for exhibition of specimens, storage of material, instruments, books, charts, etc.

(4.) *Furniture*.—Forty-two adjustable screw revolving chairs, not in building contract.

## GYMNASIUM

## AND DRILL HALL.

(1.) To be used in common for gymnasium exercises, athletic games and the drilling of the school cadets. On account of its size and for structural conditions to be generally located in the basement, with clear span of ceiling and combined height of basement and first story. Visitors' gallery generally provided at one end, entered from first floor.

(2.) *Size*.—The classes exercising in the gymnasium are from fifty to one hundred, and a suitable floor space for this number, as well as floor space for a full company of cadets at drill, is from 3,750 to 4,000 square feet. The height should not be less than 24 feet.

(3.) *Light*.—Ample outside light in all cases. Artificial light from special electric ceiling fixtures protected with wire guards.

(4.) *Heat and Ventilation.*—The former sufficient to guarantee a temperature of about 60 degrees, and about twice as much ventilation as is customary for the ordinary classroom. This is, of course, insufficient for the number of people who might occasionally occupy the gymnasium for exhibitions, but it is more than enough for the ordinary number using it for class exercises.

(5.) *Equipment.*—The standard gymnastic apparatus consists of the following fixtures, which may be slightly modified in particular cases:

- 25 Bar stalls.
- 25 Bar stall benches.
- 2 Double booms.
- 4 Double boom saddles.
- 20 Vertical climbing ropes.
- 2 Swedish boxes.
- 12 Balance beams.
- 2 Pairs jump standards, 6 feet.
- 12 Pairs jump standard iron pins.
- 6 Pairs jump standard ropes with weight on ends.
- 2 Pairs basket ball goals.
- 1 Fairbanks scale with measuring stand attached.
- 1 Dry spirometer and 24 glass mouth-pieces.
- 1 Tape, measuring 50 feet.
- 1 Truck for mat (small).
- 2 Jump boards (incline).
- 1 Graphophone.
- 18 Records.
- 2 Brown mats, 5 feet by 5 feet by 2 inches.
- 2 Brown mats, 5 feet by 10 feet by 2 inches.
- 3 Basket balls.
- 2 Strike balls, 12 inches.
- 12 Medicine balls,  $2\frac{1}{2}$  pounds.
- 4 Indoor baseballs.
- 2 Indoor baseball bats.
- 4 Volley balls.
- 24 Bean bags (green and red).
- 4 Bean bag boards.
- 75 Pairs  $\frac{3}{4}$ -lb. maple dumb-bells.
- 6 Ring foil standards.
- 75 Pairs  $\frac{3}{4}$ -lb. maple Indian clubs.
- 1 Tennis net.
- 1 Volley net.
- 36 Rope quoits, 9 inches.
- 75 Maple wands,  $\frac{3}{4}$  inch diameter.
- 4 Basket ball whistles (tin).
- 6 Paper baskets.
- 6 Ring toss stands.
- 75 Solid rubber bounding balls,  $2\frac{1}{4}$  inches diameter

(6.) *Gun Racks.*—Racks for holding the gun carried by the cadets should be provided on walls. These racks should be protected by locked doors.

(7.) *Special Rooms.*—Adjoining gymnasium and drill hall two small rooms about 10 feet square should be provided for school matron and director of gymnasium.

(8.) *Dressing-rooms, Baths and Lockers.*—  
(a.) *System.*—The clothing of all the pupils shall be placed in a central locker-room, each unit being numbered, and all being under the control of the attendant in charge. Dressing-rooms shall be provided in number equivalent to the number of a class.

(b.) *Lockers.*—The locker-room shall contain a pigeon-hole case, 10-inch cube, one for each pupil in the school, and a counter over which to deliver the clothing. Adjoining this provide a dry-room, capable of being heated to a high temperature and thoroughly ventilated. This shall be fitted with hooks and wire clothesline.

(c.) *Dressing-rooms.*—The dressing-rooms are small cabins, about 3 feet square, with a locked door, a seat and hooks. Partitions shall stop 2 inches from the floor for ventilation.

(d.) *Showers.*—The shower baths are to be 3 feet square, divided by slate or marble partitions, similar to those for water-closets, each having a bar at the front, over which a cotton sheet can be dropped. Each compartment to have two sprays in opposite corners.

Rooms shall be provided for drawing, and in boys' schools for shop work in addition.

(1.) *Size.*—The space for each subject should be about 1,500 to 1,800 square feet.

(2.) *Light.*—Windows and artificial light by special fixtures. North light preferable in the drawing-rooms.

(3.) *Floors.*—Of wood.

(4.) *Walls.*—As in a manual training-room.

(5.) *Ceilings.*—As in a manual training-room.

(6.) *Heating and Ventilation.*—Same as in manual training-rooms.

(7.) *Stock-room.*—The lumber stock-room should contain at least 80 square feet, and preferably be rectangular. Shelves as directed.

(8.) *Teachers' Closets.*—As in manual training-room.

(9.) *Fittings.*—(a.) Bookcases, like those in class-rooms, 150 capacity.

(b.) *Cases*.—For work in process, extra tools, supplies, drawing boards, models, paper, finished drawings, etc. (For all of these get directions and see former High School drawings.)

(c.) *Display Frames*.—Size and position as directed, to be of cork carpet, over soft wood back with 2-inch moulding around.

(d.) *Sink*.—A 5-foot sink, with hot and cold water, fountains as directed.

(10.) *Equipment of Free-hand Drawing-room*.—Provide for at least 25 oak drawing tables of approved type to be used by boys and girls in common.

(11.) *Equipment for Mechanical Drawing-room*.—(For boys only.) See Appendix XI. and former High School drawings.

(12.) *Equipment of Woodworking Rooms*.—(For boys only.) Provide for at least 20 cabinet benches of approved type with quick action, iron vises. Provide glue pot with electric or gas connections as directed. Machinery if directed.

(13.) *Equipment of Metal-working Room*.—(For boys only.) Six double benches 8 feet by 2 feet, fitted with 12 Prentiss iron vises,  $3\frac{1}{2}$  inch jaw; wall bench fitted with 10 stations, tool drawers and 5 Bower's tool holders; one  $\frac{3}{4}$ -inch gas hose cock terminal above each bench station; 2 gas blast burners, 1 large, 1 small; metal-covered bench with ventilated hood; 1 muffle furnace, ventilated; 1 drill; 1 grindstone; 1 pair bench shears. Machinery if directed.

(14.) *Motor*.—If directed.

(15.) *Blackboards*.—For each class-room for above subjects provide about 15 running feet of slate blackboard 4 feet high.

#### HOUSEHOLD SCIENCE.

(1.) *Size*.—The space should be about 1,200 square feet, and should accommodate the kitchen, two small rooms for showing the care of a dining-room and of a bedroom, and a china closet and pantry.

(2.) *Light, Heat, etc.*—The same as that for other rooms, with additional ventilation in the kitchen.

(3.) *Equipment*.—The kitchen to contain an equipment as may be decided upon by the Board after consultation; a kitchen pantry fitted with shelving and a china closet fitted with a sink; drawers, cupboards and shelves

enclosed with glass doors. The dining-room and bedroom simply finished rooms, having no equipment except the furniture.

## LUNCH-ROOMS.

(1.) *In General*.—The lunch-rooms in Boston schools have usually been located in the basement and where these are high and well lighted this location seems to serve satisfactorily. They should, however, have the special ventilation that is provided in a basement cooking-room. In size they should accommodate comfortably, seated at benches or small tables, that proportion of the pupils in the school which takes advantage of the luncheon facilities.

(2.) *Equipment*.—(a.) The counter should be set at height as required, and should have a rail 2 feet from it, with openings at intervals to keep children in single file, and there should be accommodation under the counter for dishes.

(b.) *Range*.—A six-hole gas range, with ample oven space.

(c.) *Sinks*.—Two good-sized soapstone sinks.

(d.) *Ice-box*.—Of sufficient size to take care of milk supply.

(e.) *Lockers*.—Sufficient to care for the clothing of the attendants, and for mops and brooms, etc. These should not be under the counter or near any place where food is kept.

(f.) *Furniture*.—In some cases the children are provided with camp chairs and small round tables to seat four. In others ordinary school benches have been provided. Both seem fairly satisfactory in operation.

## LIBRARY.

A space equivalent to a small class-room is ample for library purposes. The book accommodation will depend somewhat on the size of the school. The library is planned as a reading-room, that is, with the books in the room and not in a separate stack-room.

## WARDROBES.

(1.) In high schools large locker rooms — one for boys and one for girls — are to be provided, preferably in basement, fitted with metal lockers as the Board may direct; metal lockers are to be under separate contract.

(2.) *Light*.—The rooms should have outside light. Artificial light by ceiling or short pendent electric fixtures.



(3.) *Heat and Ventilation*.— This should be thoroughly well heated and ventilated similar to class-rooms.

(4.) *Equipment*.— The poles, hooks, etc., will be similar to those used in other schools, but more space should be given the girls, *i. e.*, about 1 foot 6 inches on centre. It has been found desirable to have some locked pigeon-holes, 20 by 20 by 12 inches. These are not required when metal lockers are used.

ELECTRIC  
WORK.

(1.) *Service*.— This should enter basement underground at location to be determined by reference to street mains, and should terminate on a switchboard located in a fireproof closet opening if possible into the basement corridor.

(2.) *Conduits*.— All wires to be run in iron conduit concealed, except conduits for mains in basement, and side outlets in boiler, engine and stack rooms. Tap circuit conduits to be run above rough floor wherever possible. If floor construction will not allow this, they are to be run below floor beams, and above ceiling, a space of 2 inches being left in which they can be run.

(3.) *Wire Slot*.— Obtain from electrical division the location of slots and openings for conduits and panel boards.

(4.) *Cabinets*.— All cabinets to be furnished by wiring contractor but finished by the general contractor.

(5.) *Cutting*.— All cutting and patching to be done by the general contractor.

(6.) *Outlets*.— Class-rooms to be provided with nine single-light ceiling outlets, controlled by three switches. Wardrobes to have one ceiling outlet, controlled by switch in class-room. Corridors to be lighted from ceiling wherever possible. Height of side outlets in rooms and corridors to be 6 feet 6 inches. Switch outlets in class-rooms to be 6 feet, elsewhere 4 feet. Switches in corridors, play-rooms and pupils' toilet-rooms to be operated by private key. In lower elementary schools omit all electric lighting in class-rooms. Basement and corridor lighting to be installed as directed by the Board.

(7.) *Fixtures*.— Fixtures in class-rooms to be of special design to combine a direct and diffused light.



(8.) *Gas*.—Gas outlets to be provided in all corridors, vestibules, stairways, boiler room and assembly hall exits; all to be wall outlets. Gas-piping to be included in the electrical engineer's work.

(9.) *Stereopticon*.—All grammar schools and high schools to be provided with an electric projection lantern with reflectoscope attachment.

(10.) *Clocks and Bells*.—All schools to be provided with an electric system of clocks, operated by a master clock. All primary schools to be provided with a system of signal bells, operated by push buttons. In all grammar and high schools the bell system to be operated automatically by master clocks according to prearranged program.

(11.) *Telephones*.—In all schools, each class-room, hall, teachers' room and boiler-room to be connected to master's office or to room occupied by the first assistant by a telephone system.

In lower elementary schools omit class-room telephones except in first assistant's room, boiler-room and corridor.

## APPENDIX X.

## NEW BUILDINGS—TAX LEVY APPROPRIATION.

## LIST OF 1916-17.

**Item 4.—High School Practical Arts Addition, Dearborn District.** This four-story addition is being erected on a lot previously purchased by this department. The area of this lot is 41,371 square feet. The area of the addition is 1,658 square feet.

The basement contains one locker-room and one store-room.

The first floor contains one class-room, 27 feet by 32 feet; one class-room, 26 feet by 32 feet.

The second floor contains one dressmaking-room, 27 feet by 32 feet, and one dressmaking-room, 26 feet by 32 feet.

The third floor contains one kitchen, one preparation-room and one demonstration-room.

The fourth floor contains one lunch-room.

The materials in the building are brick with limestone trimmings, and the construction is first class throughout.

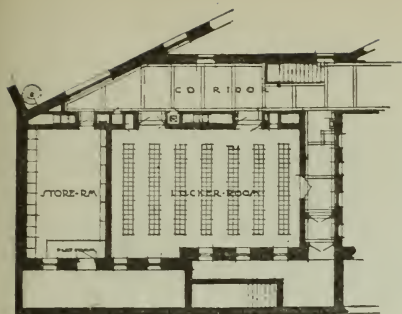
*Electrical System.*—The addition is wired and equipped for electric lighting, electric pressing irons, intercommunicating telephones, electric clocks, an automatic program system and a combined local and auxiliary fire alarm system. It is also equipped with a system of piping for vacuum cleaning.

*Heating and Ventilating System.*—This building contains a plenum system of ventilation. Another horizontal return tubular boiler is installed. Three boilers supply steam to the heating system at a reduced pressure, the water of condensation being pumped back to the boiler. The present fans, belt-driven by a steam engine, furnish air for ventilation.

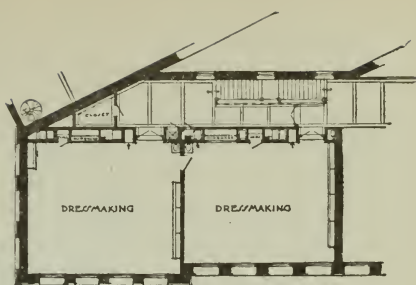
The air is heated by a primary stack of indirect radiators, the temperature being maintained at 68 degrees Fahrenheit by mixing dampers controlled automatically by a thermostat with graduated action and located in the fresh-air duct.

The class-rooms, corridors and other rooms are warmed by direct radiators. Those in the class-rooms are the wall pattern, placed under windows and automatically controlled by positive thermostats.

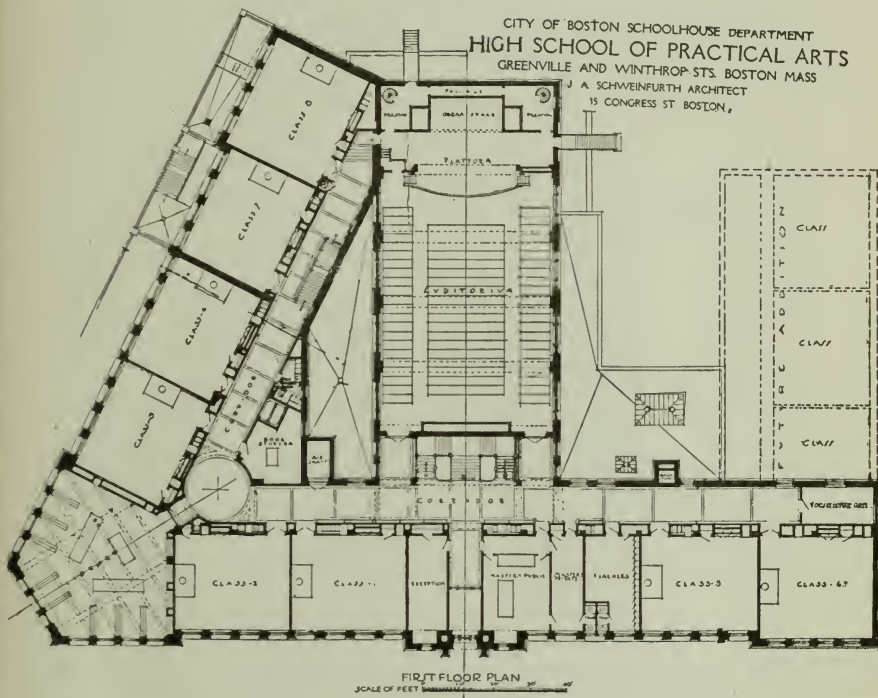
The galvanized-iron vent ducts from toilet-room in main building have been connected to electric propeller fans. These fans discharge the air through separate galvanized-iron flues to the top of the main ventilator.



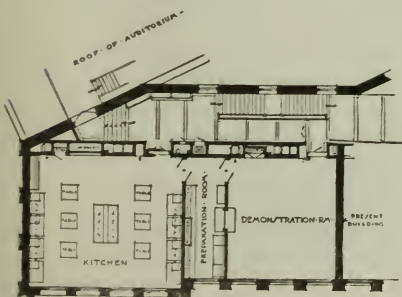
BASEMENT PLAN  
SCALE 3/8"=1'-0"



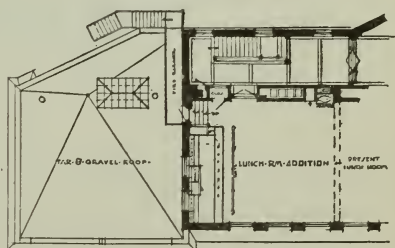
SECOND FLOOR PLAN  
SCALE 3/8"=1'-0"



FIRST FLOOR PLAN  
SCALE OF FEET 1/8"=1'-0"



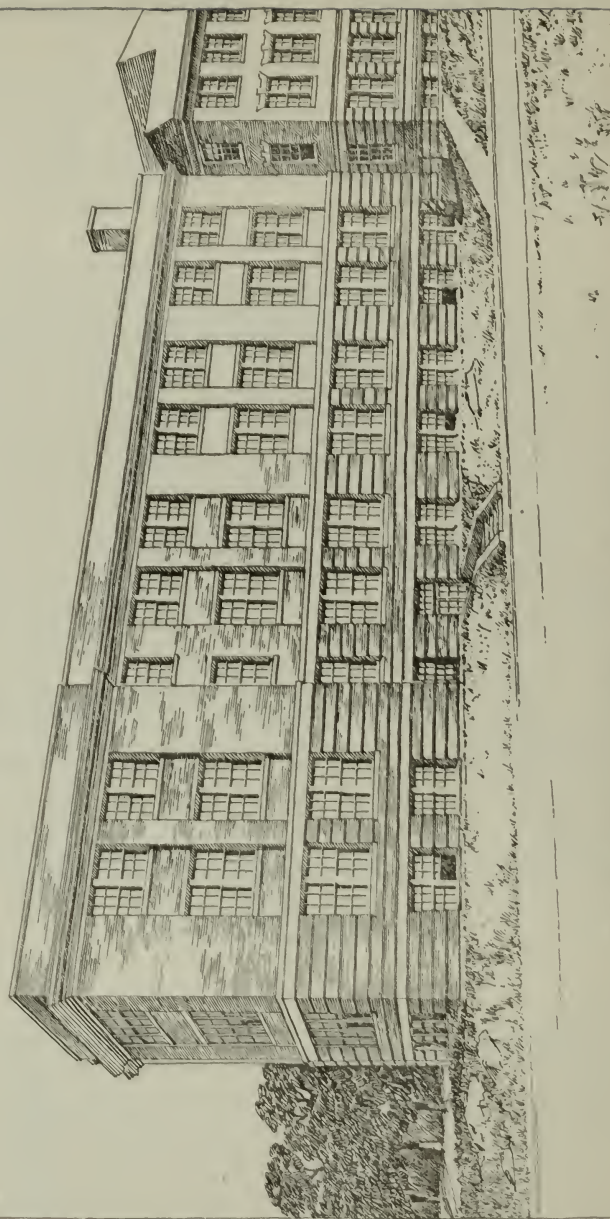
THIRD FLOOR PLAN  
SCALE 3/8"=1'-0"



FOURTH FLOOR PLAN  
SCALE 3/8"=1'-0"

HIGH SCHOOL OF PRACTICAL ARTS ADDITION.

J. A. SCHWENFURTH, ARCHITECT.



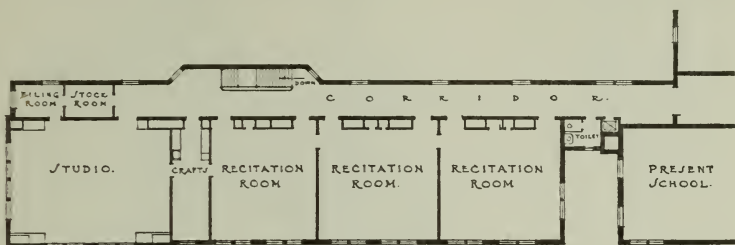
ADDITION TO HYDE PARK HIGH SCHOOL

HARVARD AVE. WEBSTER & EVERETT STS. HYDE PARK MASS.

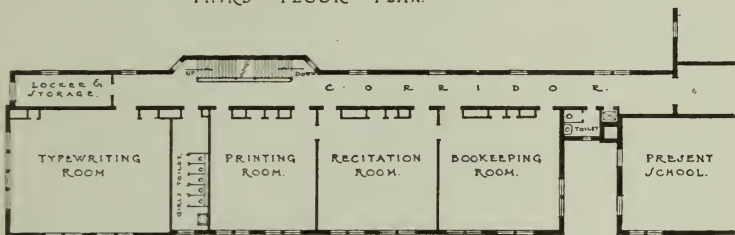
CHAS. E. GRECO ARCHITECT.

6 BEACON ST. BOSTON MASS.

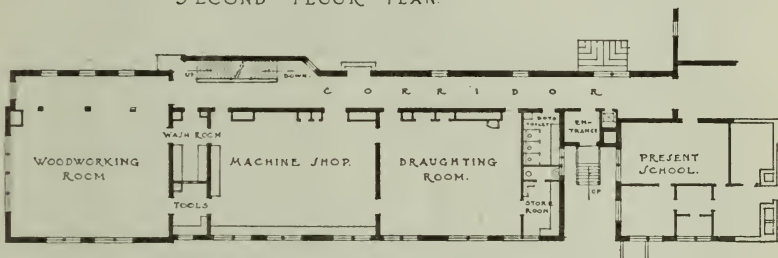




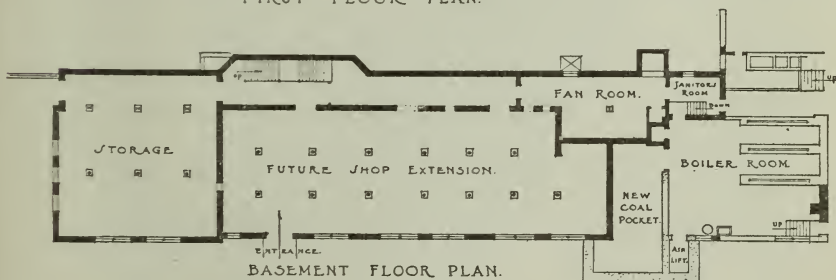
THIRD FLOOR PLAN.



SECOND FLOOR PLAN.



FIRST FLOOR PLAN.



BASEMENT FLOOR PLAN.

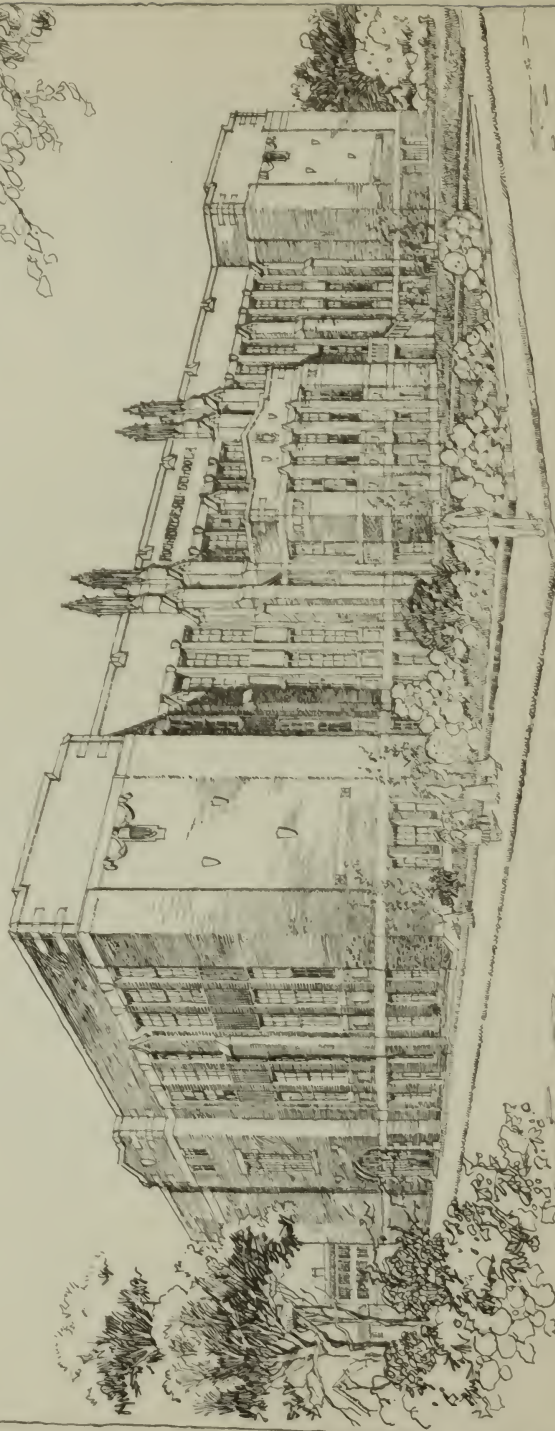
ADDITION TO HYDE PARK HIGH SCHOOL.  
HARVARD AVE. WEBSTER & EVERETT STS. HYDE PARK, MASS.  
CHAS. R. GRECO, ARCHITECT, 6 BEACON ST. BOSTON.  
SCALE 1/16" = 1'-0".



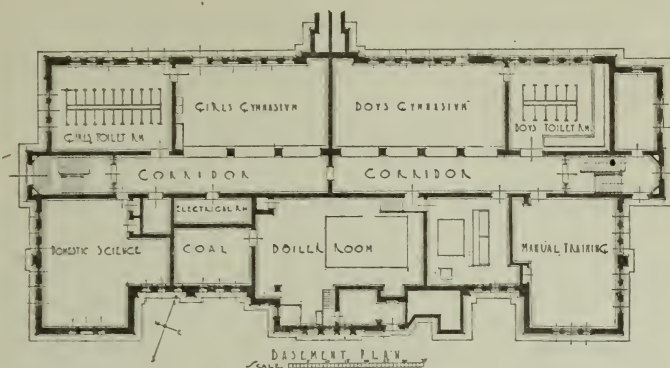


# Dorchester School Boston Massachusetts

*Designed by the Bureau of Architectural  
Drawing*

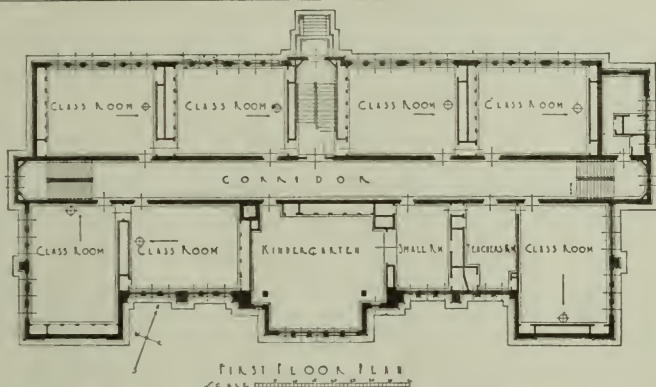


*Arthur M. Mearns, Dec  
1911*



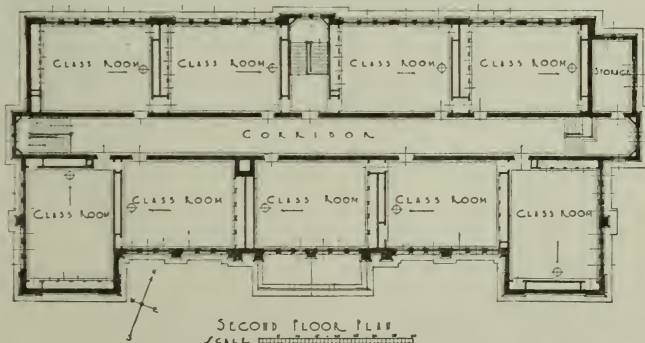
ROCHAMBEAU SCHOOL GIBSON ST DORCHESTER MASSACHUSETTS

JOSEPH W. GIBBIS  
ARCHITECT  
BOSTON MASS



ROCHAMBEAU SCHOOL GIBSON ST DORCHESTER MASSACHUSETTS

JOSEPH W. GIBBIS  
ARCHITECT  
BOSTON MASS



ROCHAMBEAU SCHOOL GIBSON ST DORCHESTER MASSACHUSETTS

JOSEPH W. GIBBIS  
ARCHITECT  
BOSTON MASS



**Item 5.—Hyde Park High School Addition, Henry Grew District, Hyde Park.** This addition is situated on Everett street. The area of the lot is 73,586 square feet. The area of the building is 7,563 square feet.

The basement contains two machine shops, two storage-rooms, one fan-room and one janitor's room.

The first floor contains one woodworking-room, one machine shop, one drafting-room, one public toilet-room, one wash-room and one boys' toilet-room.

The second floor contains one typewriting-room, one printing-room, one bookkeeping-room, one recitation-room, one locker-room, one girls' toilet-room and one teachers' toilet.

The third floor contains one study, one crafts-room, two recitation-rooms, 26 feet by 28 feet, one recitation-room, 24 feet by 26 feet, one toilet-room, one stock-room and one filing-room.

The materials of the walls are brick with limestone trimmings, and the construction is first class throughout.

*Electrical System.*—The addition is wired and equipped for electric lighting, electric power, intercommunicating telephones, electric clocks, an automatic program system and a combined local and auxiliary fire alarm system. It is also equipped with a system of piping for vacuum cleaning.

*Heating and Ventilating System.*—This building contains a plenum system of ventilation. Another horizontal return tubular boiler is installed. Three boilers supply steam to the heating system at a pressure of from one to five pounds, the water of condensation returning to the boilers by gravity.

The fan, belt-driven by an electric motor, furnishes air for ventilation. The air is heated through a primary stack of indirect radiators, temperature being maintained at 68 degrees Fahrenheit by mixing dampers controlled automatically by a thermostat with graduated action and located in the fresh-air duct.

The building is warmed by direct radiators. Those in the class-rooms are the wall pattern, placed under the windows and automatically controlled by positive thermostats.

The ventilation ducts from the rooms are connected into main ducts and carried to the top of the main ventilators on the roof. Ventilation of the small rooms is assisted by aspirating coils placed in the room.

**Item 7.—Mary Hemenway District, Gibson Street, Dorchester.** This two-story building is being erected on a lot owned by the city, the lot having come into the possession of the city by the will of Christopher Gibson in 1693. The lot contains 38,440 square feet. The building covers 10,625 square feet.

The basement contains one manual training-room, one domestic science-room, two gymnasiums, boys' and girls' toilet-rooms, one boiler-room, one fan-room, one electrical-room, one janitor's room and two store-rooms.



The first floor contains seven class-rooms, 23 feet by 29 feet, one kindergarten-room, 30 feet by 34 feet, one small kindergarten-room, 14 feet by 22 feet, one nurse's room and one teachers' room.

The second floor contains nine class-rooms, 23 feet by 29 feet, and one store-room.

The building is of brick with limestone trimmings, and the construction is first class throughout.

*Electrical System.*—The building is equipped for electric lighting, intercommunicating telephones, electric clocks, an automatic program system and a combined local and auxiliary fire alarm system. It is also equipped with a system of piping for vacuum cleaning.

*Heating and Ventilating System.*—This building contains a plenum system of ventilation. Two horizontal return tubular boilers supply steam to the heating system at a pressure of from one to five pounds, the water of condensation returning to the boilers by gravity.

The fan, belt-driven by an electric motor, furnishes air for ventilation. The air is heated through a primary stack of indirect radiators, temperature being maintained at 68 degrees Fahrenheit by mixing dampers controlled automatically by a thermostat with graduated action and located in the fresh-air duct.

The building is warmed by direct radiators. Those in the class-rooms are the wall pattern, placed under the windows and automatically controlled by positive thermostats.

All water-closets in the basement toilet-rooms are provided with outlets for seat ventilation, which are brought together by galvanized-iron ducts and are connected to suction side of electric fans. These fans discharge the air through separate galvanized-iron flues to the top of the main ventilator. Connection is also made to the space back of the urinal.

**Item 8.—Upper and Lower Elementary School, Oliver Wendell Holmes District.** This two-story building is being erected on a lot purchased by the city, situated on Glenway, Harvard and Greenwood streets. The area of the lot is 53,409 square feet. The building covers 20,584 square feet.

The basement contains three manual training-rooms, one domestic science-room, one housekeeping suite composed of a kitchen, dining-room, chamber and bath-room, one printing-room, one kindergarten, one manual training tool-room, one printing tool-room, one manual training stock-room, one domestic science stock-room, one printing stock-room, boys' and girls' toilet-rooms, one boiler-room, one fan-room, one electrical-room, one janitor's room, one janitor's store-room and four store-rooms.

The first floor contains twelve class-rooms, 23 feet by 29 feet, one assembly hall, 54 feet by 60 feet, and two ante-rooms.

The second floor contains twelve class-rooms, 23 feet by 29 feet, one master's office and one master's private office,

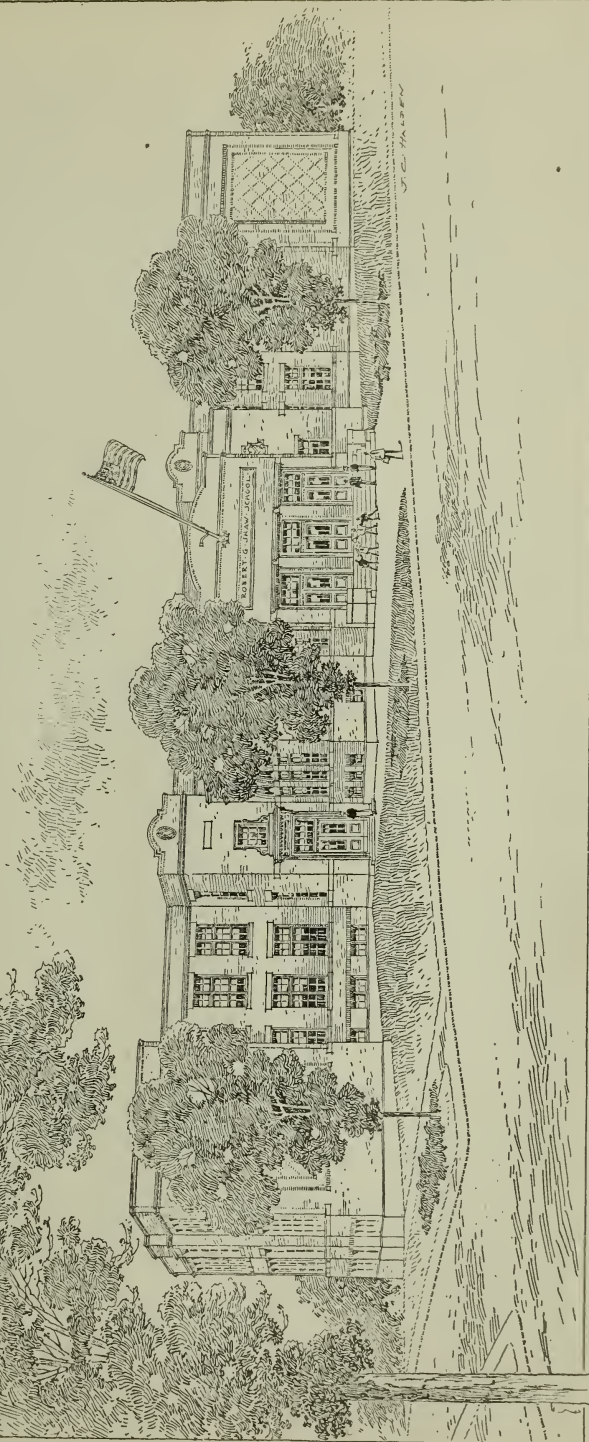


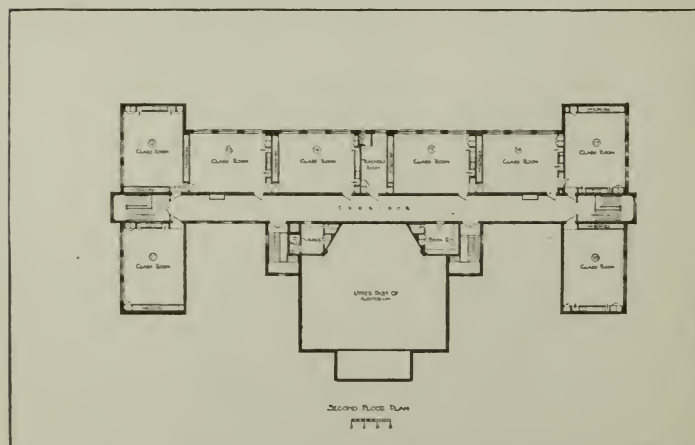
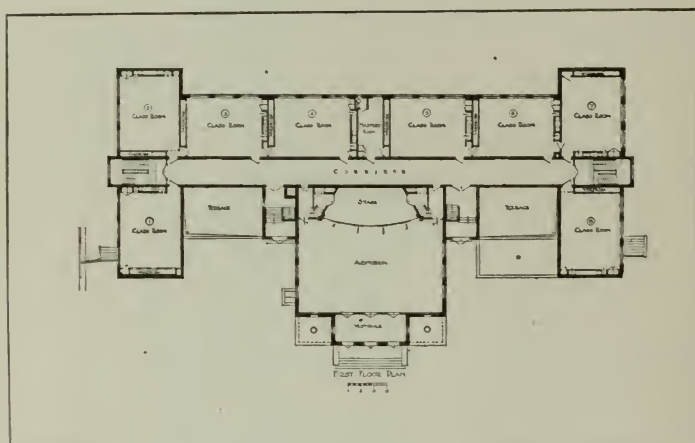
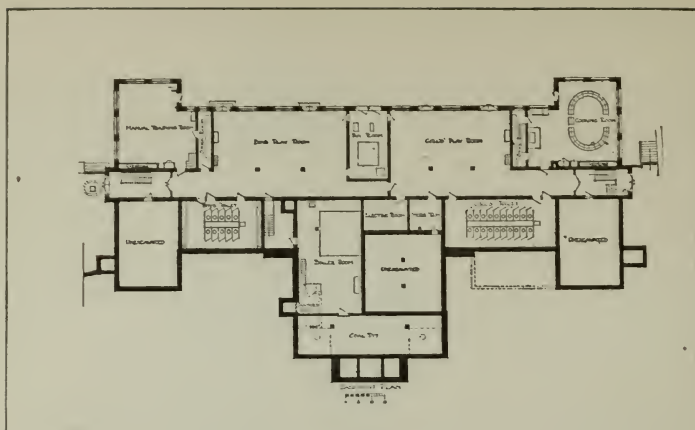
ROBERT · GOULD · SHAW · DISTRICT · SCHOOL ·

COR. MT. VERNON ST. AND CHAPIN AVE.

WEST · ROXBURY ·

Blackall · Clapp & Whittemore, Architects.





ROBERT GOULD SHAW DISTRICT.  
BLACKALL, CLAPP & WHITEMORE, Architects.

one nurse's room and one nurse's office, one men teachers' room, one women teachers' room, two emergency toilet-rooms, one storage-room and one book storage-room.

The building is constructed of brick with limestone trimmings, and is first-class construction throughout.

*Electrical System.*—The building is wired and equipped for electric lighting, intercommunicating telephones, electric clocks, an automatic program system and a combined local and auxiliary fire alarm system. It is also equipped with a system of piping for vacuum cleaning.

*Heating and Ventilating System.*—This building contains a plenum system of ventilation. Two horizontal return tubular boilers supply steam to the heating system at a pressure of from one to five pounds, the water of condensation returning to the boilers by gravity.

The fan, belt-driven by an electric motor, furnishes air for ventilation. The air is heated through a primary stack of indirect radiators, temperature being maintained at 68 degrees Fahrenheit by mixing dampers controlled automatically by a thermostat with graduated action and located in the fresh-air duct.

The building is warmed by direct radiators. Those in the class-rooms are the wall pattern, placed under the windows and automatically controlled by positive thermostats.

All water-closets in the basement toilet-rooms are provided with outlets for seat ventilation, which are brought together by galvanized-iron ducts and are connected to suction side of electric fans. These fans discharge the air through separate galvanized-iron flues to the top of the main ventilator. Connection is also made to the space back of the urinal.

**Item 9.—Elementary School, Robert G. Shaw District.** This two-story building is being erected on a lot purchased by the city, situated on Mt. Vernon street, West Roxbury. The lot contains 81,470 square feet. The building covers 14,503 square feet.

The basement contains one manual training-room, one domestic science-room, two gymnasiums, boys' and girls' toilet-rooms, one fan-room, one boiler-room, one electrical-room, one janitor's room and one store-room.

The first floor contains eight class-rooms, 23 feet by 29 feet, one assembly hall, 48 feet by 57 feet, two ante-rooms and one master's office.

The second floor contains eight class-rooms, 23 feet by 29 feet, one teachers' room, one nurse's room and one book-room.

The building is constructed of brick with limestone trimmings, and is first-class construction throughout.

*Electrical System.*—The building is wired and equipped for electric lighting, intercommunicating telephones, electric clocks, an automatic program system and a combined local and auxiliary fire alarm system. It is also equipped with a system of piping for vacuum cleaning.

*Heating and Ventilating System.*—This building contains a plenum system of ventilation. Two horizontal return tubular boilers supply steam to the heating system at a pressure of from one to five pounds, the water of condensation returning to the boilers by gravity.

The fan, belt-driven by an electric motor, furnishes air for ventilation. The air is heated through a primary stack of indirect radiators, temperature being maintained at 68 degrees Fahrenheit by mixing dampers controlled automatically by a thermostat with graduated action and located in the fresh-air duct.

The building is warmed by direct radiators. Those in the class-rooms are the wall pattern, placed under the windows and automatically controlled by positive thermostats.

All water-closets in the basement toilet-rooms are provided with outlets for seat ventilation, which are brought together by galvanized-iron ducts and are connected to suction side of electric fans. These fans discharge the air through separate galvanized-iron flues to the top of the main ventilator. Connection is also made to the space back of the urinal.

**Item 10.—Elementary School, Henry L. Pierce District.** This two-story building is being erected on a lot purchased by the city, situated on Dunbar avenue and Torrey street, Dorchester. The area of the lot is 37,850 square feet. The building covers 10,493 square feet.

The basement contains one manual training-room, one domestic science-room, boys' and girls' gymnasiums, boys' and girls' toilet-rooms, one boiler-room, one fan-room, one electrical-room, one janitor's room and one store-room.

The first floor contains eight class-rooms, 23 feet by 29 feet, one library, one nurse's room, one master's office and one waiting-room.

The second floor contains eight class-rooms, 23 feet by 29 feet, one sewing-room, one teachers' room.

The building is constructed of brick with limestone and granite trimmings, and the construction is first class throughout.

*Electrical System.*—The building is wired and equipped for electric lighting, intercommunicating telephones, electric clocks, an automatic program system and a combined local and auxiliary fire alarm system. It is also equipped with a system of piping for vacuum cleaning.

*Heating and Ventilating System.*—This building contains a plenum system of ventilation. Two horizontal return tubular boilers supply steam to the heating system at a pressure of from one to five pounds, the water of condensation returning to the boilers by gravity.

The fan, belt-driven by an electric motor, furnishes air for ventilation. The air is heated through a primary stack of indirect radiators, temperature being maintained at 68 degrees

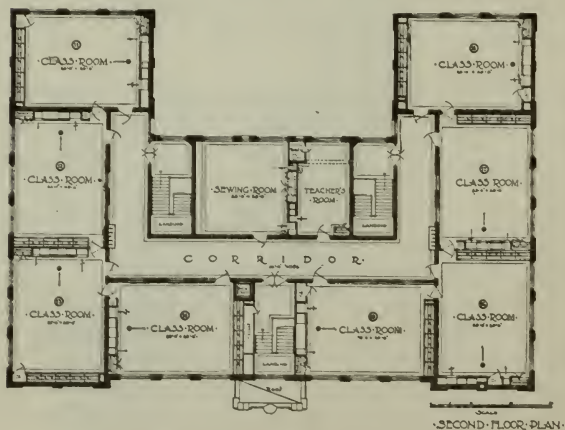
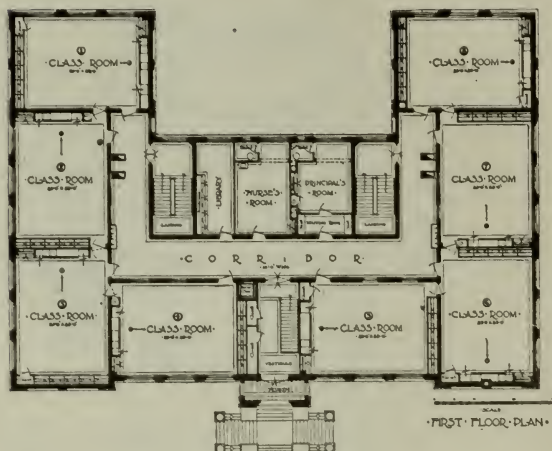
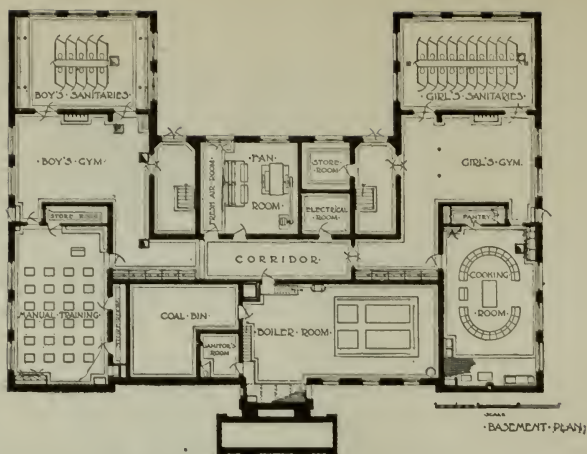


CITY OF BOSTON · ELEMENTARY · SCHOOL · HENRY L · PIERCE · DISTRICT  
 · H · H · ATWOOD ARCHTCT ·



J. C. HADEN





HENRY L. PIERCE DISTRICT.  
H. H. Atwood, Architect.



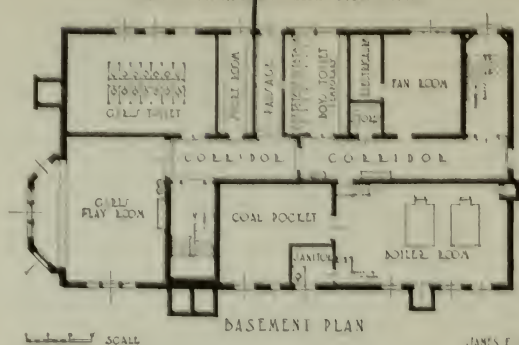
—ELEMENTARY— SCHOOL —  
ROGER WOLCOTT DISTRICT

A.D. 1917

BOSTON MASS

*James C. McLaughlin* Architect  
BOSTON MASS

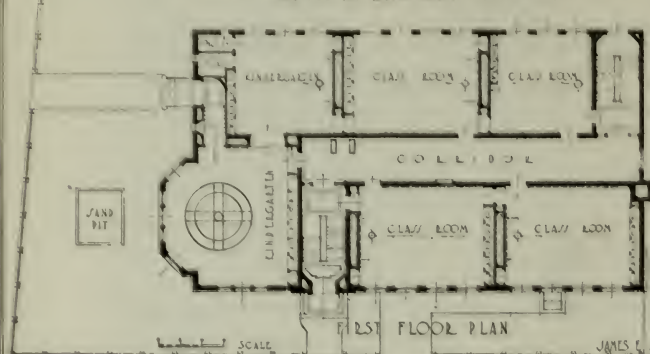
ELEMENTARY SCHOOL - ROGER WOLCOTT DISTRICT  
NORFOLK AND NORFOLK STREETS - BOSTON - MASS.



SCALE

JAMES E. McLAUGHLIN ARCHITECT

ELEMENTARY SCHOOL - ROGER WOLCOTT DISTRICT  
NORFOLK AND NORFOLK STREETS - BOSTON - MASS.



SCALE

JAMES E. McLAUGHLIN ARCHITECT

ELEMENTARY SCHOOL - ROGER WOLCOTT DISTRICT  
NORFOLK AND NORFOLK STREETS - BOSTON - MASS.



SCALE

JAMES E. McLAUGHLIN ARCHITECT

Fahrenheit by mixing dampers controlled automatically by a thermostat with graduated action and located in the fresh-air duct.

The building is warmed by direct radiators. Those in the class-rooms are the wall pattern, placed under the windows and automatically controlled by positive thermostats.

All water-closets in the basement toilet-rooms are provided with outlets for seat ventilation, which are brought together by galvanized-iron ducts and are connected to suction side of electric fans. These fans discharge the air through separate galvanized-iron flues to the top of the main ventilator. Connection is also made to the space back of the urinal.

**Item 11.—James Otis School, U. S. Grant District, East Boston.** This third story has been added to the original James Otis School and gives an added area of 8,923 square feet.

The third floor contains six class-rooms, 26 feet by 32 feet, one fan-room and one supply-room.

The building is constructed of brick with limestone trimmings, and the construction is first class throughout.

*Electrical System.*—This building is equipped with additions for electric lighting and additions to telephone system for intercommunicating, and additions to the secondary clock system; also additions on fire alarm and bell system.

*Heating and Ventilating System.*—The present cast-iron sectional boilers were found large enough to heat the new floor. The fan, belt-driven by an electric motor and located on the third floor, furnishes air for ventilation.

The air is heated by a primary stack of indirect radiators, the temperature being maintained at 68 degrees Fahrenheit by mixing dampers controlled automatically by a thermostat with graduated action and located in the fresh-air duct.

The class-rooms, corridors and other rooms are warmed by direct radiators. Those in the class-rooms are the wall pattern, placed under windows and automatically controlled by positive thermostats.

The ventilation ducts from the rooms are connected into main ducts and carried to the top of the main ventilators on the roof. Ventilation of the small rooms is assisted by aspirating coils placed in the room.

**Item 12.—Elementary School, Roger Wolcott District.** This two-story, eight-room unit of a proposed sixteen-room building is being erected on a lot purchased by the city, situated at the corner of Morton and Norfolk streets, Dorchester. The lot contains 49,000 square feet and the building covers 6,702 square feet.

The basement contains one gymnasium, boys' and girls' toilet-rooms, one boiler-room, one fan-room, one electrical-room, one janitor's room and two store-rooms.



The first floor contains three class-rooms, 23 feet by 29 feet, one special class-room, 23 feet by 24 feet, one kindergarten-room, 27 feet by 32 feet, one kindergarten-room, 22 feet by 23 feet.

The second floor contains five class-rooms, 23 feet by 29 feet, one teachers' room, one nurse's room.

The building is constructed of brick with limestone trimmings, and the construction is first class throughout.

. *Electrical System.*—The building is wired and equipped for electric lighting, intercommunicating telephones, electric clocks, an automatic program system and a combined local and auxiliary fire alarm system. It is also equipped with a system of piping for vacuum cleaning.

*Heating and Ventilating System.*—This building contains a plenum system of ventilation. Two cast-iron sectional down draft boilers supply steam to the heating system at a pressure of from one to five pounds, the water of condensation returning to the boilers by gravity.

The fan, belt-driven by an electric motor, furnishes air for ventilation. The air is heated through a primary stack of indirect radiators, temperature being maintained at 68 degrees Fahrenheit by mixing dampers controlled automatically by a thermostat with graduated action and located in the fresh-air duct.

The building is warmed by direct radiators. Those in the class-rooms are the wall pattern, placed under the windows and automatically controlled by positive thermostats.

All water-closets in the basement toilet-rooms are provided with outlets for seat ventilation, which are brought together by galvanized-iron ducts and are connected to suction side of electric fans. These fans discharge the air through separate galvanized-iron flues to the top of the main ventilator. Connection is also made to the space back of the urinal.



# APPENDIX XI.

City of Boston.—Public Schools.—Assessed Valuations.—Land and Buildings.

NAME.	Location.	Land, Assessed Valuation.	Building, Assessed Valuation.	Total Assessed Valuation.
Aaron Davis.....	Yeoman street, Roxbury.....	\$10,900	\$44,000	\$54,900
Abby W. May.....	Thornton street, Roxbury.....	3,600	41,000	44,600
Abraham Lincoln.....	Fayette street, Roxbury.....	177,700	280,000	457,700
Abram E. Cutter.....	Melford street, Charlestown.....	4,800	13,000	17,800
Adams Street.....	Adams street, Dorchester.....	5,300	2,500	7,800
Agassiz.....	Brewer street, Jamaica Plain.....	19,600	112,000	131,600
Albert Palmer.....	Eustis street, Roxbury.....	12,900	45,000	57,900
Amos Webster.....	Hilton street, Hyde Park.....	1,300	9,200	10,500
Andrews.....	Genesee street, city.....	28,700	114,000	142,700
Asa Gray.....	Weston street, Roxbury.....	12,000	38,000	50,000
Atherton.....	Columbia road, Dorchester.....	10,600	50,000	60,600
Auburn.....	School street, Brighton.....	1,900	5,000	6,900
Austin.....	Paris street, East Boston.....	7,000	8,000	15,000
Bailey Street.....	Bailey street, Dorchester.....	5,100	6,900	12,000
Baldwin.....	Chardon street, city.....	24,600	13,000	37,600
B. F. Tweed.....	Cambridge street, Charlestown.....	16,800	39,000	55,800

City of Boston.—Public Schools.—Assessed Valuations.—Land and Buildings.—*Continued.*

NAME.	Location.	Land, Assessed Valuation.	Building, Assessed Valuation.	Total Assessed Valuation.
Benedict Fenwick.....	Magnolia street, Dorchester.....	\$20,200	\$62,800	\$83,000
Benjamin Cushing.....	Robinson street, Dorchester.....	6,300	60,000	66,300
Benjamin Dean.....	H street, South Boston.....	4,600	42,000	46,600
Benjamin Pope.....	O street, South Boston.....	8,000	45,000	53,000
Bennett.....	Chestnut Hill avenue, Brighton.....	11,000	74,000	85,000
Bennett Branch.....	Dighton street, Brighton.....	2,900	15,000	17,900
Bigelow.....	West Fourth street, South Boston.....	29,000	180,000	209,000
Blackinton.....	Blackinton street, East Boston.....	20,600	124,000	144,600
Boston Trade School.....	Common street, city.....	51,300	38,700	90,000
Bowditch.....	Green street, Jamaica Plain.....	15,400	104,000	119,400
Bowdoin.....	Myrtle street, city.....	46,000	109,000	155,000
Brighton High.....	Cambridge street, Brighton.....	42,900	222,000	264,900
Bunker Hill.....	Baldwin street, Charlestown.....	20,600	67,400	88,000
Butler.....	East River street, Hyde Park.....	500	300	800
Canterbury Street.....	Canterbury street, West Roxbury.....	2,000	2,000	4,000
Capen.....	Sixth street, South Boston.....	5,600	34,000	39,600
Chapman.....	Eutaw street, East Boston.....	17,500	130,000	147,500
Charles Bulfinch.....	Parker street and Fisher avenue, Roxbury.....	19,500	79,000	98,500
Charles C. Perkins.....	St. Botolph street.....	48,000	76,500	124,500

Charles E. Daniels.....	Mead street, Charlestown.....	4,700	9,300	14,000
Charles Sumner.....	Ashland street, Roslindale.....	3,600	50,000	53,600
Charlestown High.....	Monument square, Charlestown.....	24,200	299,800	324,000
Chestnut Avenue.....	Chestnut avenue, Roxbury.....	5,500	2,000	7,500
Choate Burnham.....	East Third street, South Boston.....	5,100	60,000	65,100
Christopher Columbus.....	Tileston street, city.....	45,000	173,000	218,000
Christopher Gibson.....	Bowdoin avenue, Dorchester.....	9,900	111,000	120,900
Clinch.....	F street, South Boston.....	8,100	33,000	41,100
Comins.....	Tremont street, Roxbury.....	33,300	41,000	74,300
Commodore Barry.....	Belmont square, East Boston.....	8,400	55,000	63,400
Copley.....	Bartlett street, Charlestown.....	19,300	64,000	83,300
Cottage Place.....	Cottage place, Roxbury.....	10,600	2,500	13,100
Cudworth.....	Gove street, East Boston.....	31,300	80,000	111,300
Cushman.....	Parmenter street, city.....	105,500	57,000	162,500
Cyrus Alger.....	Seventh street, South Boston.....	10,000	48,000	58,000
Common Building.....	Tremont Entrance to Fenway.....	.....	.....	1
Damon.....	Readville street, Hyde Park.....	4,700	20,000	24,700
Dearborn.....	Ambrose street, Roxbury.....	24,200	223,000	247,200
Dillaway.....	Kenilworth street, Roxbury.....	17,100	79,000	96,100
Dorchester Avenue.....	Dorchester avenue, corner Gibson street, Dorchester.....	15,300	2,500	17,800
Dorchester High.....	Talbot avenue, Dorchester.....	54,300	456,000	510,300
Drake.....	C street, South Boston.....	12,800	33,000	45,800

<sup>1</sup> Assessed under Normal Group.

## City of Boston.—Public Schools.—Assessed Valuations.—Land and Buildings.—Continued.

NAME.	Location.	Land, Assessed Valuation.	Building, Assessed Valuation.	Total Assessed Valuation.
Dudley.....	Dudley and Putnam streets, Roxbury.....	\$26,300	\$132,000	\$158,300
Dwight.....	West Springfield street, city.....	31,100	54,500	85,600
East Boston High.....	Marion street, East Boston.....	20,600	281,000	301,600
Edmund P. Tileston.....	Norfolk street, Mattapan.....	10,500	145,000	155,500
Edward Everett.....	Pleasant street, Dorchester.....	25,100	107,500	132,600
Elbridge Smith.....	Centre street, Dorchester.....	23,700	60,000	83,700
Ellhu Greenwood.....	Metropolitan avenue, Hyde Park.....	4,600	34,000	38,600
Eliot.....	North Bennet street, city.....	38,600	45,000	83,600
Elizabeth Peabody.....	Poplar street, city.....	16,300	15,200	31,500
Ellen H. Richards.....	Beaumont street, Dorchester.....	7,800	44,000	51,800
Ellis Mendell.....	School street, West Roxbury.....	13,800	122,000	135,800
Emerson.....	Prescott street, East Boston.....	20,000	101,000	121,000
English High.....	Montgomery street, city.....	256,900	527,000	783,900
Everett.....	West Northampton street, city.....	45,400	105,500	150,900
Fairmount.....	Williams avenue, Hyde Park.....	4,400	27,000	31,400
Farraugut.....	Fenwood road, Roxbury.....	23,700	165,000	188,700
Florence Nightingale.....	West Park street, Dorchester.....	11,900	60,000	71,
Florence Street.....	Florence street, Roslindale.....	3,000	5,000	8,000
Franklin.....	Waltham street, city.....	41,100	50,000	91,100

Frances E. Willard.....	Rutland street, city.....	11,800	18,100	29,900
Francis Parkman.....	Walk Hill street, Forest Hills.....	4,000	122,000	126,000
Frederic A. Whitney.....	Armington street, Brighton.....	4,300	50,000	54,300
Frederic W. Lincoln.....	Broadway, South Boston.....	14,700	48,000	62,700
Freeman.....	Charter street, city.....	26,200	28,000	54,200
Frothingham.....	Prospect street, Charlestown.....	21,000	81,000	102,000
Frothingham Annex.....	Prospect street, Charlestown.....			<sup>1</sup>
Gaston.....	East Fifth street, South Boston.....	17,700	104,000	121,700
George Bancroft.....	Appleton street, near Dartmouth street.....	46,100	35,000	81,100
George Frisbie Hoar.....	West Fifth street, near D street.....	18,000	69,000	87,000
George Putnam.....	Columbus avenue, near Egleston square.....	23,400	121,000	144,400
George T. Angell.....	Harrison avenue and Hunneman street.....	39,400	55,200	94,600
Germantown.....	Washington street, Germantown.....	2,700	10,000	12,700
Gilbert Stuart.....	Richmond street, Dorchester.....	9,300	114,000	123,300
Girls' High.....	West Newton street, city.....	56,200	458,900	515,100
Girls' Latin.....	Tremont Entrance to Fenway.....			<sup>2</sup>
Glenway.....	Glenway street, Dorchester.....			<sup>3</sup>
Glenway Annex.....	Glenway street, Dorchester.....			<sup>3</sup>
Grant.....	Phillips street, city.....	9,400	9,100	18,500
Hancock.....	Parmenter street, city.....	165,700	54,800	220,500
Hancock Annex.....	Parmenter street, city.....			<sup>4</sup>
Harbor View Street.....	Harbor View street, Dorchester.....	11,100	15,000	26,100

<sup>1</sup> Assessed under Frothingham.<sup>2</sup> Assessed under Normal Group.<sup>3</sup> Assessed under William E. Endicott.<sup>4</sup> Assessed under Hancock.



## City of Boston.—Public Schools.—Assessed Valuations.—Land and Buildings.—Continued.

NAME.	Location.	Land, Assessed Valuation.	Building, Assessed Valuation.	Total Assessed Valuation.
Harris.....	Adams street, Dorchester.....	\$9,300	\$20,300	\$29,600
Harvard.....	Devens street, Charlestown.....	21,200	81,800	103,000
Harvard.....	North Harvard street, Brighton.....	3,100	11,000	14,100
Hawes Hall.....	Broadway, South Boston.....	30,400	42,000	72,400
Heath Street.....	Heath street, Roxbury.....	4,800	1,000	5,800
Hemenway.....	Wolecott street, Hyde Park.....	1,300	8,400	9,700
Henry Grew.....	Gordon avenue, Hyde Park.....	8,100	45,000	53,100
Henry L. Pierce.....	Washington street, Dorchester.....	32,200	118,000	150,200
Henry Vane.....	Baker street, West Roxbury.....	2,500	31,000	33,500
High School of Commerce.....	Avenue Louis Pasteur, Roxbury.....	63,900	480,000	543,900
High School of Practical Arts.....	Greenville street, Roxbury.....	26,900	298,500	325,400
High School of Practical Arts Annex.....	Greenville street, Roxbury.....	.....	.....	1
Hillside.....	Elm street, Jamaica Plain.....	13,000	32,000	45,000
Hobart Street.....	Hobart street, Brighton.....	4,500	17,000	21,500
Horace Mann.....	Newbury street, city.....	42,000	87,000	129,000
Howard Avenue.....	Howard avenue, Dorchester.....	11,500	113,000	124,500
Howard Avenue Annex.....	Howard avenue, Dorchester.....	.....	.....	2
Hugh O'Brien.....	Dudley and Langdon streets, Roxbury.....	28,400	126,000	154,400
Hugh O'Brien Annex.....	Dudley and Langdon streets, Roxbury.....	.....	.....	.....

Hull.....	Quincy street, Roxbury.....	7,000	45,000	52,000
Hyde.....	Hammond street, Roxbury.....	20,800	121,000	141,800
Hyde Park High.....	Everett street, Hyde Park.....	6,000	85,000	91,000
Ira Allen.....	Parker street, Roxbury.....	13,600	54,000	67,600
Jacob Foss.....	Adams and Chestnut streets, Charlestown.....	23,000	3,500	26,500
James A. McDonald.....	Polk street, Charlestown.....			<sup>4</sup>
James Otis.....	Paris and Marion streets, East Boston.....	10,400	109,400	119,800
Jefferson.....	Heath street, Roxbury.....	11,500	211,000	222,500
John A. Andrew.....	Dorchester street, South Boston.....	14,200	68,000	82,200
John Boyle O'Reilly.....	Dorchester street, South Boston.....	12,500	113,000	125,500
John Cheverus.....	Moore street, East Boston.....	18,900	103,000	121,900
John D. Philbrick.....	Folsom street, West Roxbury.....	2,700	59,700	62,400
John G. Whittier.....	Southern avenue, Dorchester.....	6,900	83,100	90,000
John J. Williams.....	Groton street, city.....	23,400	69,000	92,400
John L. Motley.....	Savin Hill avenue, Dorchester.....	12,300	25,000	37,300
John Winthrop.....	Brookford and Dacia streets.....	11,100	110,000	121,100
Joseph Tuckerman.....	Fourth and L streets, South Boston.....	15,100	77,000	92,100
Joshua Bates.....	Harrison avenue, city.....	19,000	48,000	67,000
Julia Ward Howe.....	Dale street, Roxbury.....	13,900	65,000	78,900
Julia Ward Howe Annex.....	Dale street, Roxbury.....			<sup>5</sup>
Lafayette.....	Ruggles street, Roxbury.....	13,800	62,800	76,600

<sup>1</sup> Assessed under High School of Practical Arts.      <sup>2</sup> Assessed under Howard Avenue.      <sup>3</sup> Assessed under Hugh O'Brien.

<sup>4</sup> Assessed under Folk Street.      <sup>5</sup> Assessed under Julia Ward Howe.

City of Boston.—Public Schools.—Assessed Valuations.—Land and Buildings.—*Continued.*

NAME.	Location.	Land, Assessed Valuation.	Building, Assessed Valuation.	Total Assessed Valuation.
Lawrence.	B street, South Boston.	\$14,300	\$42,000	\$56,300
Lewis.	Paulding street, Roxbury.	18,500	108,000	126,500
Little Em'ly.	Adams street, Dorchester.	.....	.....	1
Longfellow.	Hewlett and South streets, Roslindale.	7,700	131,000	138,700
Louisa May Alcott.	West Concord street, city.	17,500	35,000	52,500
Louis Prang.	Bartlett street, Roxbury.	6,900	26,000	32,900
Lowell.	310 Centre street, Jamaica Plain.	22,900	44,500	67,400
Lowell Annex.	Mozart street, Jamaica Plain.	.....	.....	2
Lucretia Crocker.	Parker street, Roxbury.	16,500	53,000	69,500
Lyceum Hall.	Meeting House Hill, Dorchester.	10,600	20,000	30,600
Margaret Fuller.	Glen road, Jamaica Plain.	5,700	40,000	45,700
Marshall.	Westville street, Dorchester.	14,600	183,000	197,600
Martha Baker.	Walk Hill street, Dorchester.	4,500	24,500	29,000
Martin.	Huntington avenue, Roxbury.	63,700	105,000	168,700
Mary Hemenway.	Adams street, Dorchester.	9,000	122,000	131,000
Mary L. Brock.	Chestnut Hill avenue, Brighton.	13,700	20,000	33,700
Mary Lyon.	Turner and Hester streets, Brighton.	6,000	40,000	46,000
Mather.	Meeting House Hill, Dorchester.	43,000	302,500	345,500
Mayflower.	Harbor View street, Dorchester.	.....	.....	3

Mayhew .....	Chambers street, city .....	53,000	107,000	160,000
Mechanic Arts High .....	Belvidere street, city .....	97,000	648,000	745,000
Minot .....	Neponset avenue, Neponset .....	9,500	64,000	73,500
Mozart .....	Beech street, West Roxbury .....	4,800	23,000	27,800
Mt. Pleasant Avenue .....	Mt. Pleasant avenue, Roxbury .....	2,400	3,700	6,100
Mt. Vernon Street .....	Mt. Vernon street, West Roxbury .....	9,800	6,000	15,800
Miles Standish .....	Roxbury and King streets, Roxbury .....	14,100	42,000	56,100
Nahum Chapin .....	Common street, Charlestown .....	7,700	6,800	14,500
Nathan Hale .....	Cedar street, Roxbury .....	16,000	68,000	84,000
Nathaniel Hawthorne .....	Harlow street, Roxbury .....	.....	.....	4
Noble .....	Princeton street, East Boston .....	7,000	48,000	55,000
Noble Annex .....	Princeton street, East Boston .....	.....	.....	5
Norcross .....	D street, South Boston .....	10,000	73,000	83,000
Normal Group * .....	Huntington avenue, Roxbury .....	225,000	750,000	975,000
Oak Square .....	Nonantum street, Brighton .....	3,600	20,000	23,600
Old Agassiz .....	Burroughs street, Jamaica Plain .....	.....	.....	6
Old Baker Street .....	Baker street, West Roxbury .....	1,200	1,000	2,200
Old Dearborn .....	Dearborn place, Roxbury .....	.....	.....	7
Old Edward Everett .....	Sumner street, Dorchester .....	10,200	40,000	50,200
Old Gibson .....	Athelwold street, Dorchester .....	.....	.....	8
Old Ira Allen .....	Leon street, Roxbury .....	4,500	1,000	5,500

\* Includes assessed valuation of Girls' Latin, Patrick A. Collins and Common Building.

1 Assessed under Harris.

2 Assessed under Lowell.

3 Assessed under Harbor View Street.

4 Assessed under Howard Avenue.

5 Assessed under Dearborn.

6 Assessed under Agassiz.

7 Assessed under Dearborn.

8 Assessed under Oliver Wendell Holmes.

## City of Boston.—Public Schools.—Assessed Valuations.—Land and Buildings.—Continued.

NAME.	Location.	Land, Assessed Valuation.	Building, Assessed Valuation.*	Total Assessed Valuation.
Old Mather.....	Meeting House Hill, Dorchester.....			<sup>1</sup>
Old Parkman.....	Silver street, South Boston.....	\$2,700	\$6,000	\$8,700
Oliver H. Perry.....	East Seventh street, South Boston.....	11,200	146,000	157,200
Oliver Holden.....	Pearl street, Charlestown.....	10,700	5,300	16,000
Oliver Wendell Holmes.....	School street, Dorchester.....	16,900	195,000	211,900
Parkman.....	Broadway, South Boston.....	23,400	28,000	51,400
Patrick A. Collins.....	Worthington street, Roxbury.....			<sup>2</sup>
Paul Jones.....	Horace street, East Boston.....	7,000	114,000	121,000
Paul Revere.....	Prince street, city.....	113,900	164,600	278,500
Peter Faneuil.....	Joy street, city.....	80,000	110,000	190,000
Philip H. Sheridan.....	Prescott street, East Boston.....	10,100	74,000	84,100
Phillips Brooks.....	Quincy and Perth streets, Dorchester.....	13,300	125,000	138,300
Phineas Bates.....	Beech street, West Roxbury.....	2,200	28,000	30,200
Pierpont.....	Hudson street, city.....	7,900	22,100	30,000
Plummer.....	Belmont street, East Boston.....	21,000	89,000	110,000
Polk Street.....	Polk street, Charlestown.....	7,700	82,300	90,000
Pormort.....	Snelling place, city.....	6,600	9,400	16,000
Prescott.....	Elm street, Charlestown.....	7,100	26,400	33,500
Prescott Annex.....	Elm street, Charlestown.....			



Prince.....	Newbury street, city.....	137,800	132,000	269,800
Public Latin.....	Warren avenue, city.....	.....	.....	• 4
Quincy.....	Tyler street, city.....	36,000	69,000	105,000
Quincy E. Dickerman.....	Magnolia street, Dorchester.....	8,800	88,000	96,800
Quincy Street.....	Quincy street, Dorchester.....	5,700	4,900	10,600
Rice.....	Dartmouth street, city.....	74,600	65,000	139,600
Richard C. Humphreys.....	Summer street, Dorchester.....	.....	.....	5
Robert G. Shaw.....	Hastings street, West Roxbury.....	9,200	58,000	67,200
Robert Swan.....	Thetford avenue and Evans street, Dorchester.....	8,400	37,000	45,400
Roger Clap.....	Harvest street, Dorchester.....	8,600	67,000	75,600
Roger Wolcott.....	Morton and Norfolk streets, Mattapan.....	11,100	137,000	148,100
Roxbury High.....	Warren street, Roxbury.....	27,700	384,000	411,700
Samuel Adams.....	Webster street, East Boston.....	24,400	143,000	167,400
Samuel Dexter.....	Harvard street, Charlestown.....	8,600	11,400	20,000
Samuel G. Howe.....	Fifth street, South Boston.....	8,700	43,000	51,700
Samuel W. Mason.....	Norfolk avenue, Roxbury.....	14,000	118,000	132,000
Sarah J. Baker.....	Perrin street, Roxbury.....	13,800	161,000	174,800
Savin Hill.....	Savin Hill avenue, Dorchester.....	7,000	13,700	20,700
School Street.....	School street, Roxbury.....	.....	.....	6
Sharp.....	Anderson street, city.....	23,800	19,200	43,000
Sherwin.....	Madison square, Roxbury.....	25,600	103,000	128,600

1 Assessed under Mather. 2 Assessed under Normal Group. 3 Assessed under Prescott. 4 Assessed under English High.  
5 Assessed under Old Edward Everett. 6 Assessed under George Putnam.

## City of Boston.—Public Schools.—Assessed Valuations.—Land and Buildings.—Continued.

NAME.	Location.	Land, Assessed Valuation.	Building, Assessed Valuation.	Total Assessed Valuation.
Shurtleff .....	Dorchester street, South Boston.....	\$30,400	\$75,000	\$105,400
Simonds .....	Broadway, South Boston.....	.....	.....	<sup>1</sup>
Skinner .....	Fayette street, city .....	26,600	26,400	53,000
Smith Street.....	Smith street, Roxbury .....	4,200	1,000	5,200
Somerset Street.....	Somerset street, corner Allston street.....	75,600	8,400	84,000
South Boston High.....	Thomas park, South Boston.....	47,800	343,700	391,500
Stephen M. Weld .....	Seymour street, Roxbury.....	4,000	47,000	51,000
Stoughton.....	River street, Dorchester.....	3,700	15,000	18,700
School Committee Building.....	City.....	307,400	12,600	320,000
Tappan.....	Lexington street, East Boston.....	6,900	48,600	55,500
Theodore Lyman .....	Paris and Cove streets, East Boston.....	21,000	114,000	135,000
Thomas Dwight .....	Phillips street, Roxbury.....	14,200	35,000	49,200
Thomas Gardner.....	Athol and Brentwood streets.....	10,900	140,000	150,900
Thomas Gardner Annex.....	Athol street, Brighton.....	.....	.....	<sup>2</sup>
Thomas N. Hart.....	East Fifth street, South Boston.....	10,500	131,000	141,500
Thomas Starr King.....	Bunker Hill street, Charlestown.....	.....	.....	<sup>3</sup>
Thornton Street.....	Thornton street, Roxbury.....	2,000	1,000	3,000
Trade School for Girls.....	620 Massachusetts avenue, city.....	22,200	22,900	45,100
Trescott.....	Tileston avenue, Hyde Park.....	4,200	49,000	53,200

Tyler Street.....	Tyler street, city.....	21,600	20,000	41,600
Ulysses S. Grant.....	Paris street, E. st Boston.....	22,000	116,500	138,500
Wait.....	Shawmut avenue, city.....	49,000	28,000	77,000
Walnut Street.....	Walnut street, Neponset.....	4,600	10,000	14,600
Warren.....	Summer street, Charlestown.....	17,200	45,000	62,200
Washington.....	Norman street, city.....	74,600	325,500	400,100
Washington Allston.....	Cambridge street, Brighton.....	26,800	50,000	76,800
Washington Allston Annex.....	Cambridge street, Brighton.....	.....	.....	4
Washington Street.....	Washington street, Forest Hills.....	3,300	1,000	4,300
Way Street.....	Way street, near Harrison avenue.....	4,400	5,000	9,400
Weld.....	Highland street, Hyde Park.....	2,200	5,400	7,600
Wells.....	Blossom street, city.....	39,400	60,500	99,900
Wendell Phillips.....	Phillips street, city.....	53,500	40,200	93,700
West Roxbury High.....	Elm street, Jamaica Plain.....	20,000	130,000	150,000
William Bacon.....	Vernon street, Roxbury.....	23,100	80,000	103,100
William Bradford.....	Willowwood street, Dorchester.....	5,300	42,000	47,300
William Brewster.....	Morton street, Mattapan.....	8,900	26,100	35,000
William Brewster Annex.....	Morton street, Mattapan.....	.....	.....	6
William C. Bryant.....	Kenilworth street, Roxbury.....	3,500	30,000	33,500
William E. Endicott.....	McLellan street, Dorchester.....	19,400	94,500	113,900
William E. Russell.....	Columbia road, Dorchester.....	39,300	188,000	227,300

<sup>1</sup> Assessed under Hawes Hall.<sup>2</sup> Assessed under Thomas Gardner.<sup>3</sup> Assessed under Bunker Hill.<sup>4</sup> Assessed under Washington Allston.<sup>5</sup> Assessed under William Brewster.

City of Boston.—Public Schools.—Assessed Valuations.—Land and Buildings.—*Concluded.*

NAME.	Location.	Land, Assessed Valuation.	Building, Assessed Valuation.	Total Assessed Valuation.
William Eustis.	George street, Roxbury.	\$12,300	\$21,600	\$33,900
William H. Kent.	Moulton street, Charlestown.	8,000	53,500	61,500
William L. Garrison.	Hutchings street, Roxbury.	18,000	66,100	84,100
William Wirt Warren.	Waverly street, Brighton.	3,500	40,000	43,500
Williams.	Homestead street, Roxbury.	10,500	40,000	50,500
Winchell.	Blossom street, city.	59,300	115,000	174,300
Winship.	Dighton street, Brighton.	7,600	116,000	123,600
Winthrop Street.	Winthrop street, Roxbury.	4,900	1,000	5,900
W. L. P. Boardman.	Munroe street, Roxbury.	9,400	53,000	62,400
Wyman.	Wyman street, Jamaica Plain.	12,200	42,000	54,200
William Blackstone.	Blossom street, city.	65,000	174,000	239,000

## Vacant Lots and Portable Buildings.

NAME.	Location.	Land, Assessed Valuation.	Building, Assessed Valuation.	Total Assessed Valuation.
Norfolk street.....	Dorchester.....	\$9,100	.....	\$9,100
Chauncy place.....	Charlestown.....	3,700	.....	3,700
Dunbar avenue.....	Dorchester.....	4,500	.....	4,500
9 Warrenton street.....	City.....	6,300	\$3,000	9,300
Gibson street.....	Dorchester.....	8,400	.....	8,400
25 Warrenton street.....	City.....	7,100	2,800	9,900
Parker street.....	Roxbury.....	56,100	.....	56,100
Peverell street.....	Dorchester.....	900	.....	900
Glenway and Harvard streets.....	Dorchester.....	30,700	.....	30,700
Washington and Stinson streets.....	Germantown.....	800	.....	800
Grove street lot.....	West Roxbury.....	800	.....	800
Everett street lot.....	Dorchester.....	3,800	3,000	6,800
Rosewood street lot.....	Dorchester.....	3,300	500	3,800
Brainerd road.....	Brighton.....	6,500	.....	6,500
Academy Hill road.....	Brighton.....	5,400	.....	5,400
Washington street and Corey road.....	Brighton.....	9,000	.....	9,000
Union street.....	Brighton.....	10,000	.....	10,000
Harvard avenue and Webster streets.....	Hyde Park.....	4,000	.....	4,000
Charter street lot.....	City.....	58,500	.....	58,500
Frankfort, Porter and Lubec streets.....	East Boston.....	13,500	.....	13,500
105 old style portables at \$2,000 apiece.....	.....	.....	210,000	210,000
31 new style portables at \$2,000 apiece.....	.....	.....	62,000	62,000



## 88 ANNUAL REPORT OF SCHOOLHOUSE DEPARTMENT.

## Grand Totals.

LETTERS.	Land, Assessed Valuation.	Building, Assessed Valuation.	Total Assessed Valuation.
A.....	\$296,300	\$705,400	\$1,001,700
B.....	320,100	1,185,600	1,505,700
C.....	417,100	1,380,100	1,797,200
D.....	185,800	981,000	1,166,800
E.....	483,300	1,576,200	2,059,500
F.....	166,100	654,100	820,200
G.....	222,200	976,200	1,198,400
H.....	513,700	1,813,800	2,327,500
I.....	13,600	50,000	63,600
J.....	193,700	1,119,700	1,313,400
L.....	128,700	520,300	649,000
M.....	350,800	1,716,700	2,067,500
N.....	265,700	940,400	1,206,100
O.....	61,000	414,300	475,300
P.....	438,000	993,800	1,431,800
Q.....	50,500	161,900	212,400
R.....	139,600	729,000	868,600
S.....	625,600	1,078,200	1,703,800
T.....	113,500	561,500	675,000
U.....	22,000	110,000	132,000
W.....	438,100	1,368,700	1,806,800
W.....	157,000	501,000	658,000
Vacant lots.....	151,400	9,300	160,700
Portable buildings.....		137,000	137,000
Grand Totals.....	\$5,753,800	\$19,684,200	\$25,438,000



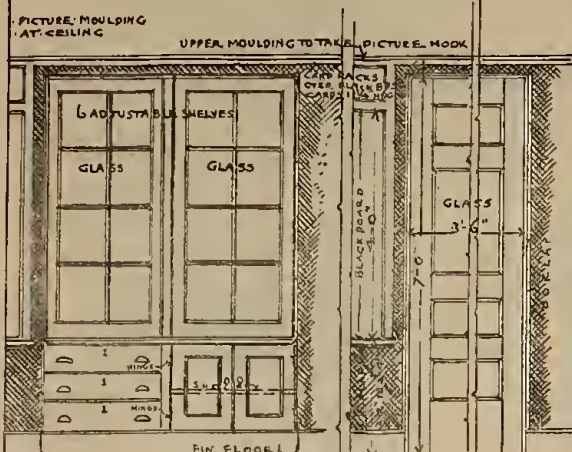




# STANDARDS OF GENERAL DETAIL

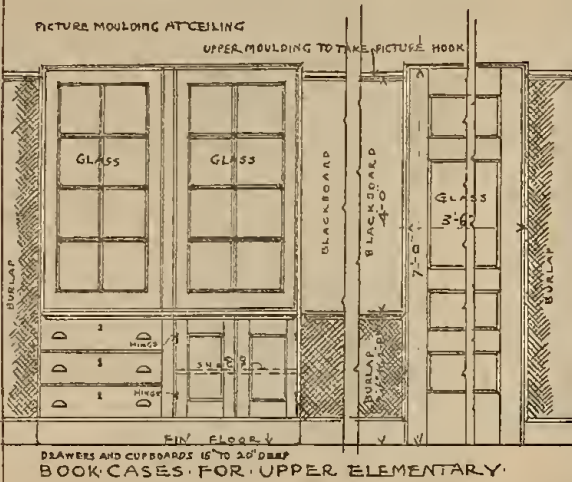
CITY OF BOSTON SCHOOLHOUSE DEPARTMENT

## BOOK CASES



BOOK CASES FOR LOWER ELEMENTARY

ALL DOORS AND DRAWERS TO LOCK



BOOK CASES FOR UPPER ELEMENTARY

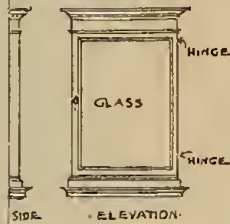
SCALE OF DETAIL

## KINDERGARTEN CIRCLE



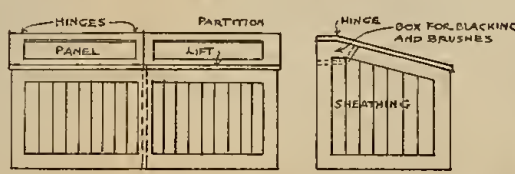
PLAN OF CIRCLE

## BULLETIN BOARD



ELEVATION

## COAL AND WOOD BOX



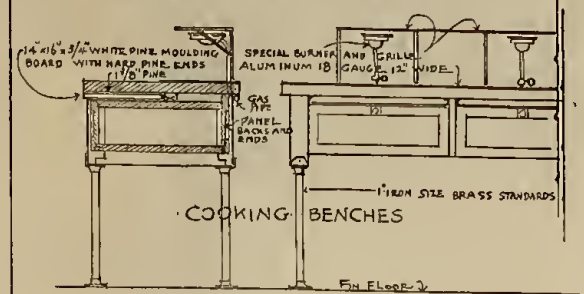
ELEVATION

END

SCALE OF PLAN

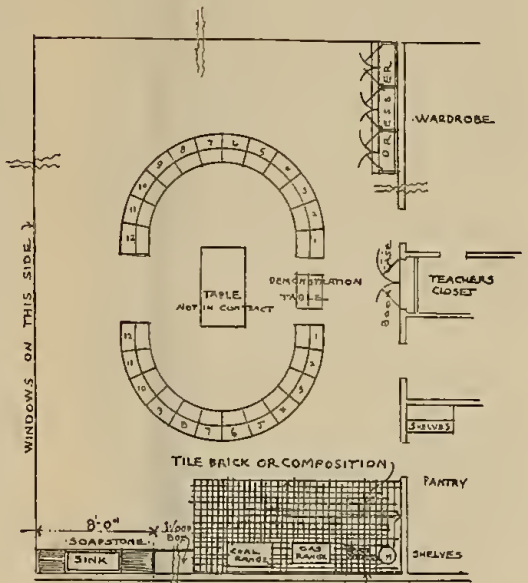
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## COOKING ROOM AND FITTINGS



SECTION

ELEVATION

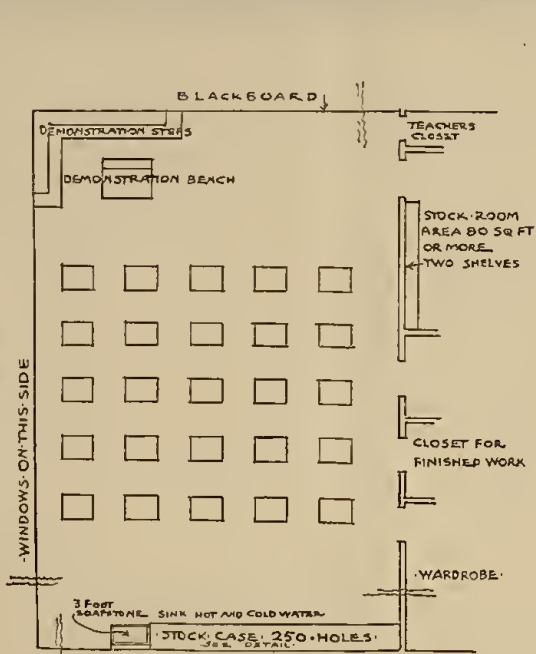


PLAN OF COOKING ROOM

SCALE OF PLAN

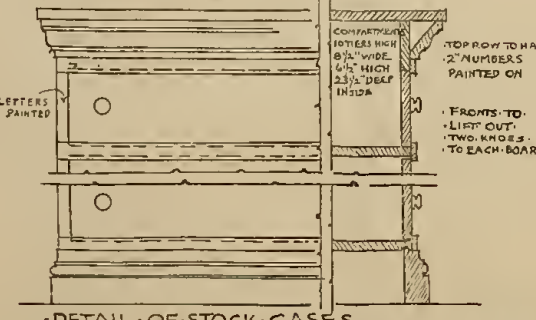
SCALE OF DETAIL

## MANUAL TRAINING ROOM



PLAN OF MANUAL TRAINING ROOM

SECTIONAL CASES OF 30 COMPARTMENT EACH

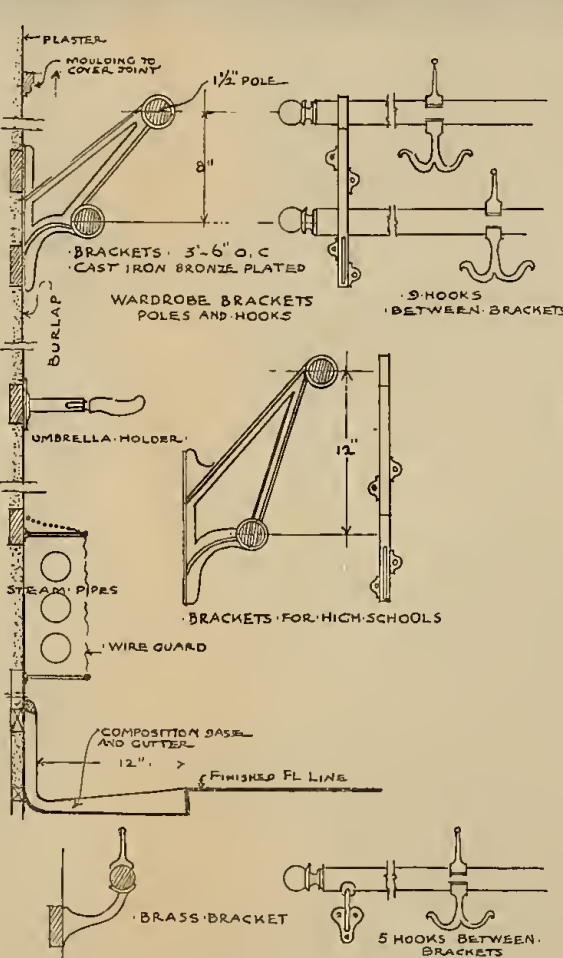


DETAIL OF STOCK CASES

SCALE OF PLAN

SCALE OF DETAIL

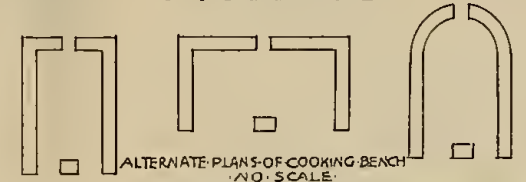
## WARDROBE FITTINGS



DETAIL OF CLOTHES POLES USED WHEN ALL SIDES OF WARDROBES ARE UTILIZED

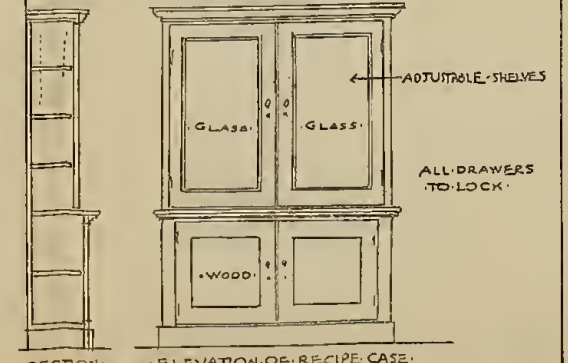
SCALE

## COOKING ROOM FITTINGS



SECTION

ELEVATION OF DRESSER



SECTION

ELEVATION OF RECIPE CASE

SCALE

DRAWN BY J. J. D. 1913.

APPROVED BY J. J. D.

21

# BOOK - QV

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 Title: [illegible]

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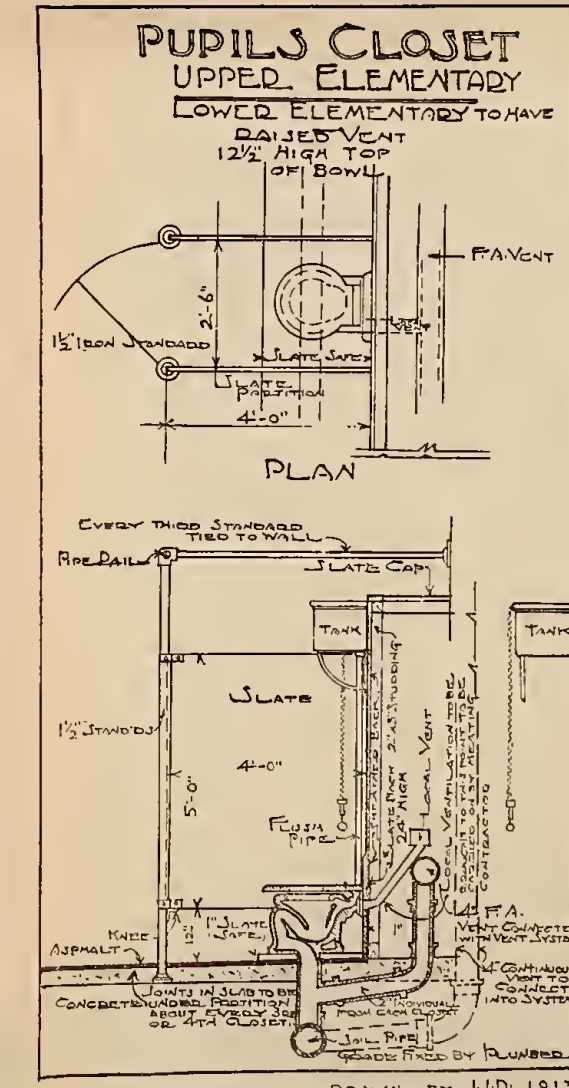
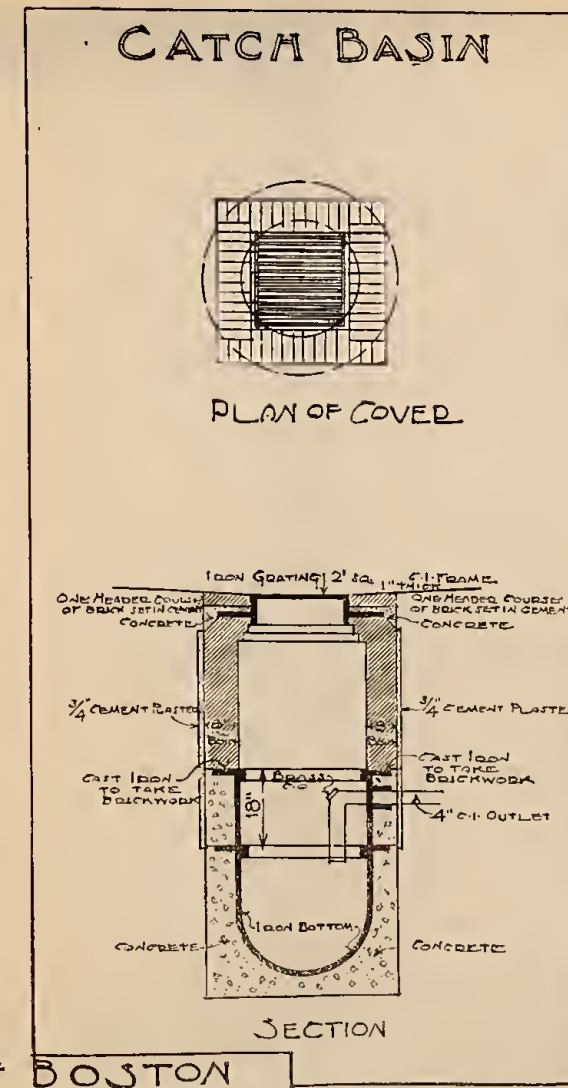
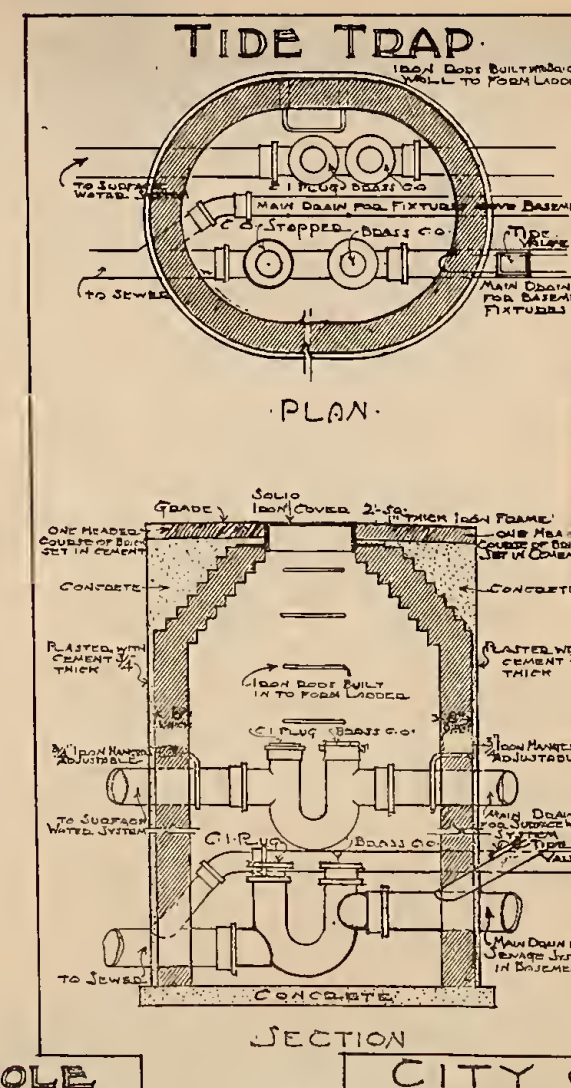
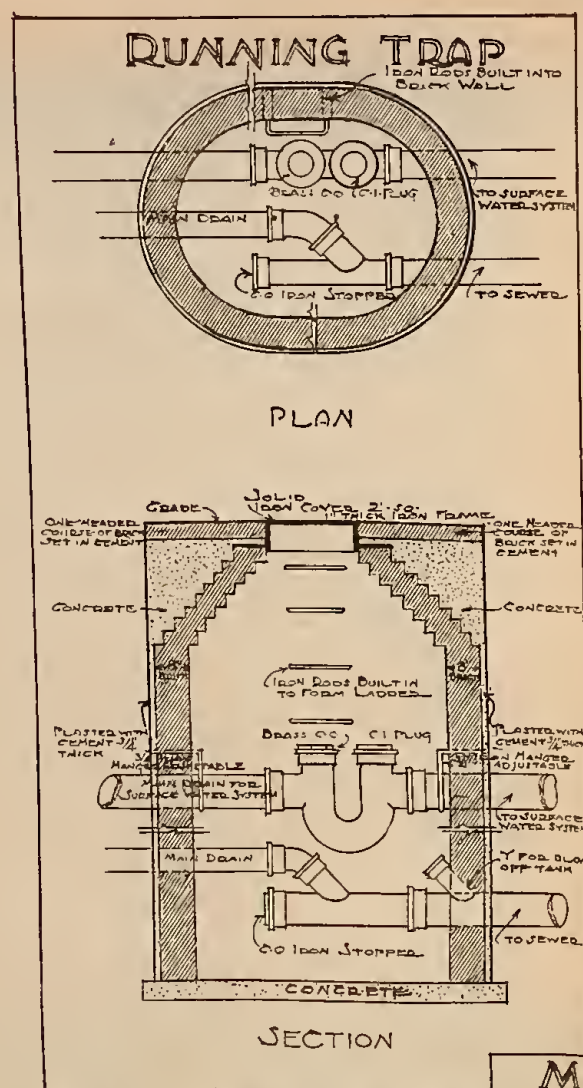
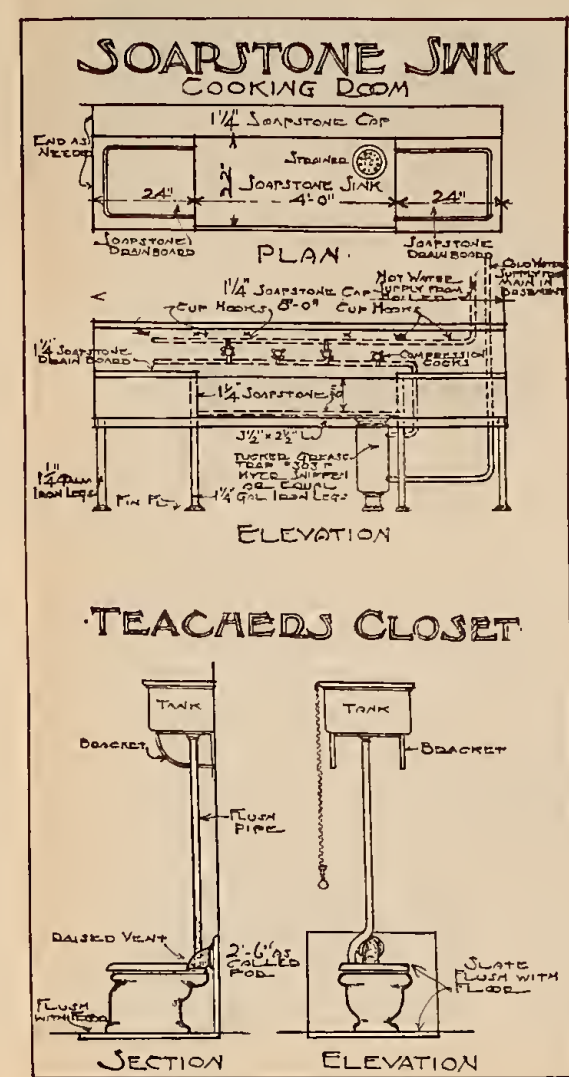
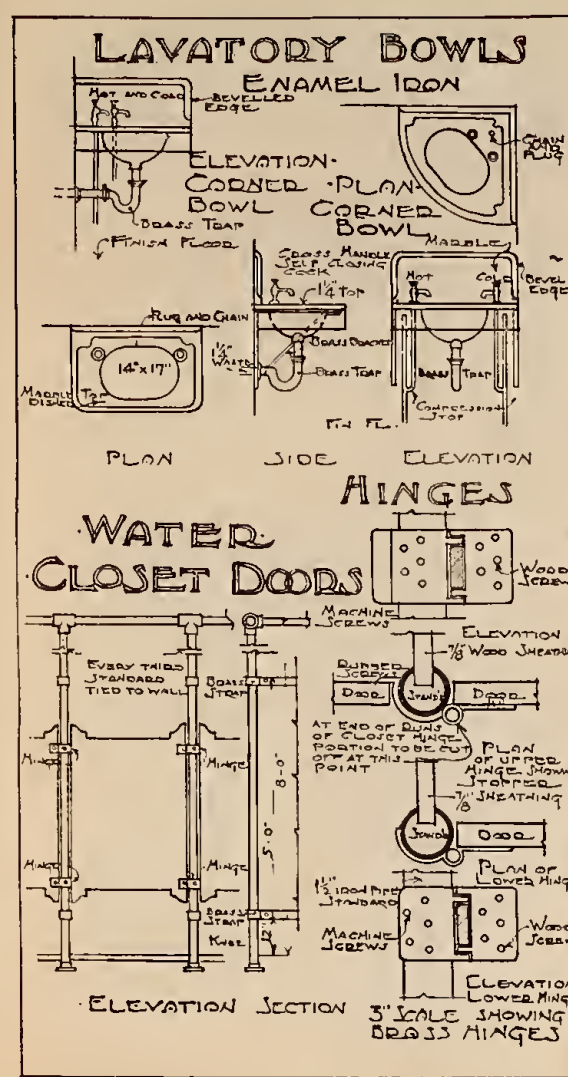
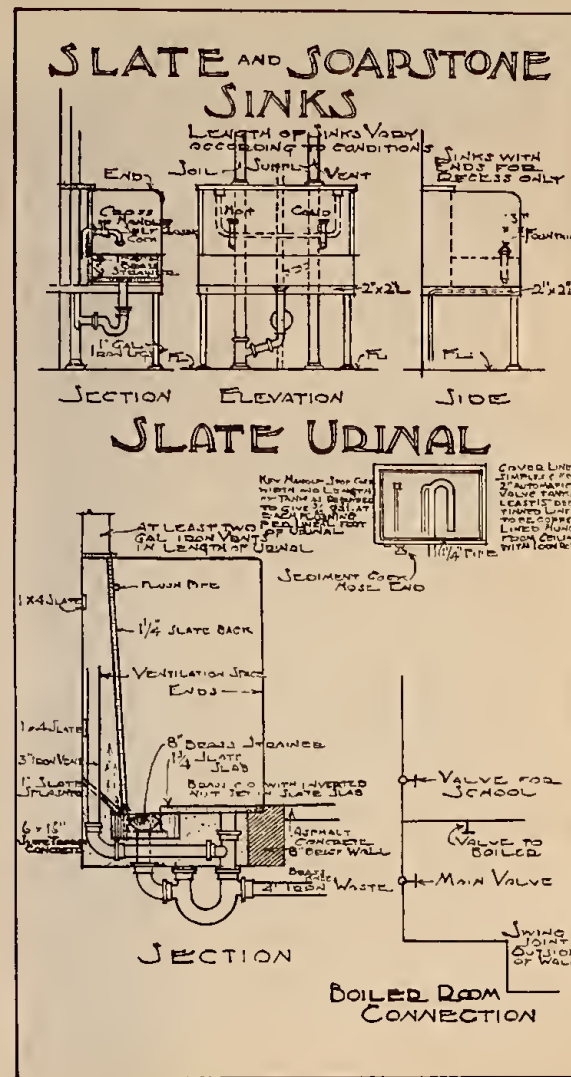
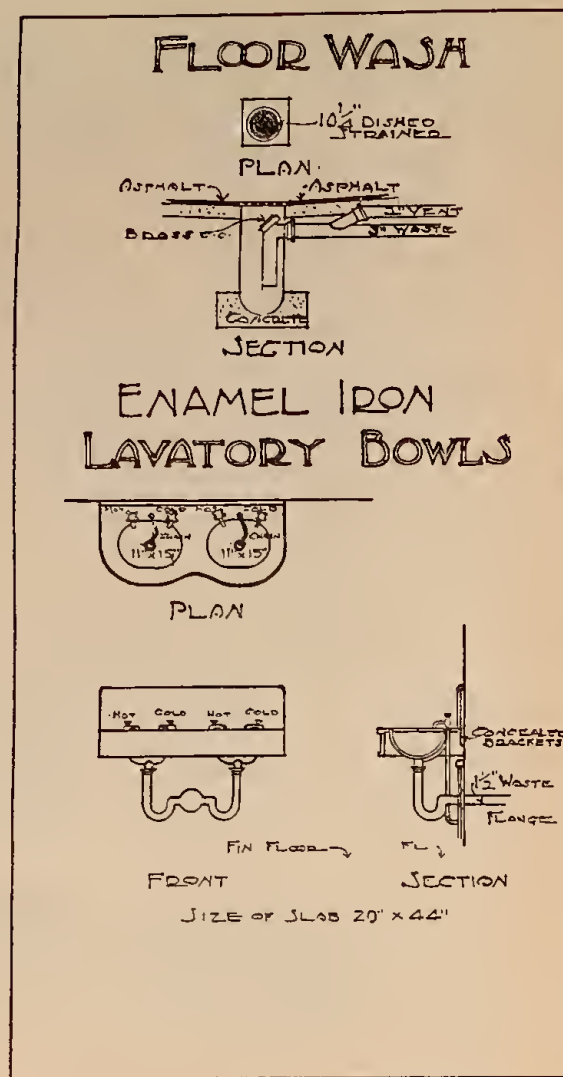
## APPENDIX XIII.

TEACHING LOGS





# PLUMBING STANDARDS



SCALE 0 1 2 3 4 5 6 7 8 FT.

MAN HOLE

SCHOOLHOUSE

CITY OF BOSTON

DEPARTMENT

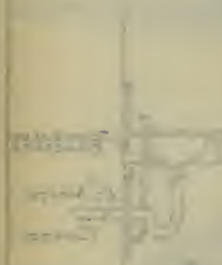
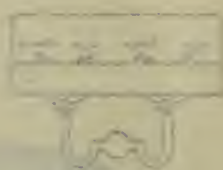
DRAWN BY J.J.D. 1913.  
TRACED BY E.D. 1917.  
APPROVED "J. J. Cullen."



# FLOOR WALL



# ENAMEL BOWL LAVATORY BOWL



Technical drawing of a lavatory bowl. It shows a cross-section of the bowl and its mounting. The bowl is shown with a flange and a mounting bracket. The drawing is labeled with various components and dimensions.

# APPENDIX XIV.

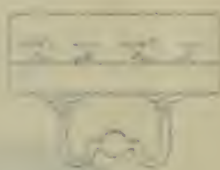




# FLOOR WALL



# ENAMEL BOWL



SECTION

SECTION

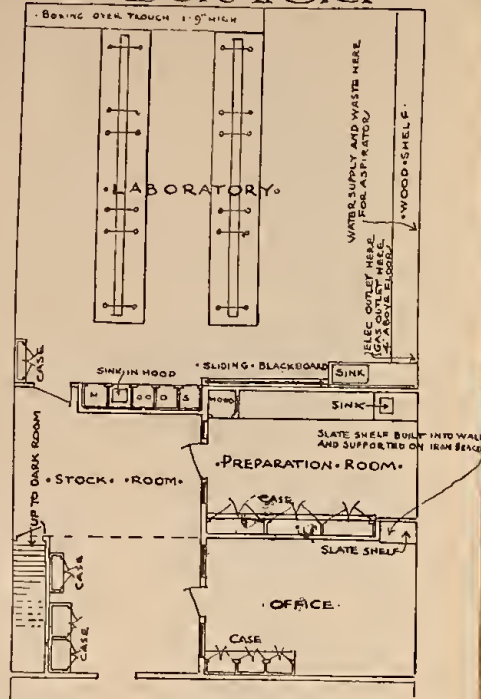
SECTION



# HIGH.

## CHEMICAL.

### LABORATORY.

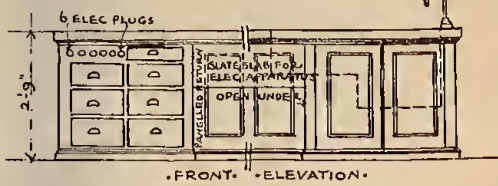


# SCHOOL.

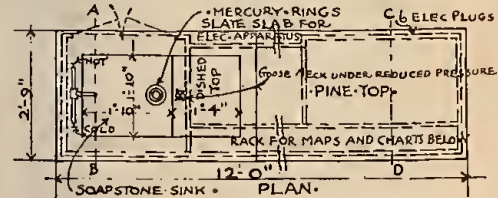
## INSTRUCTORS TABLE.



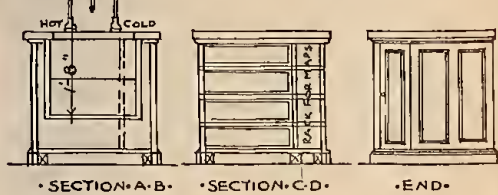
## IN CHEMICAL.



## AND PHYSICAL.

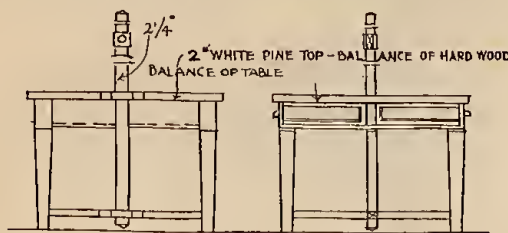


## LABORATORIES.

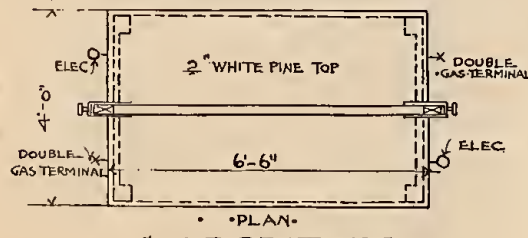
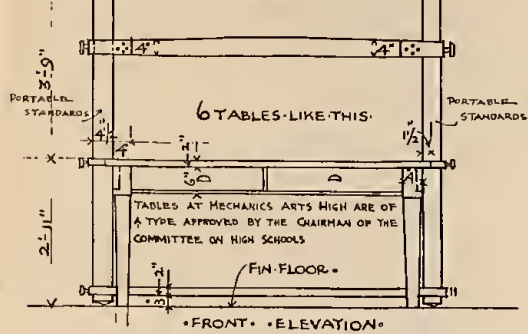


# STANDARD.

## PUPILS TABLE.



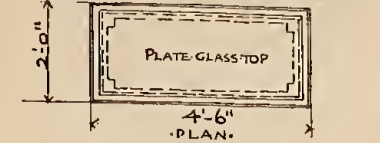
## PHYSICAL.



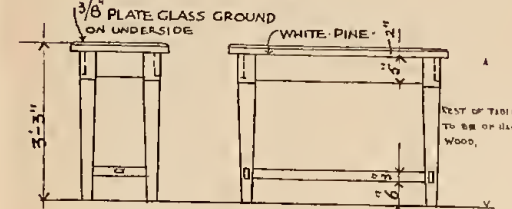
## LABORATORY.

# FITTINGS.

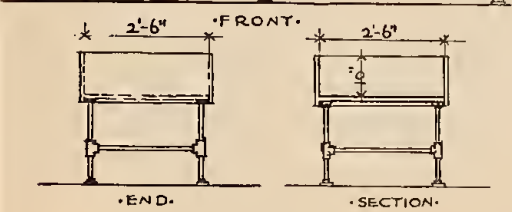
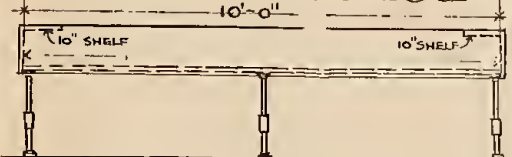
## PUPILS TABLE.



## BOTANICAL.



## AND ZOOLOGICAL.

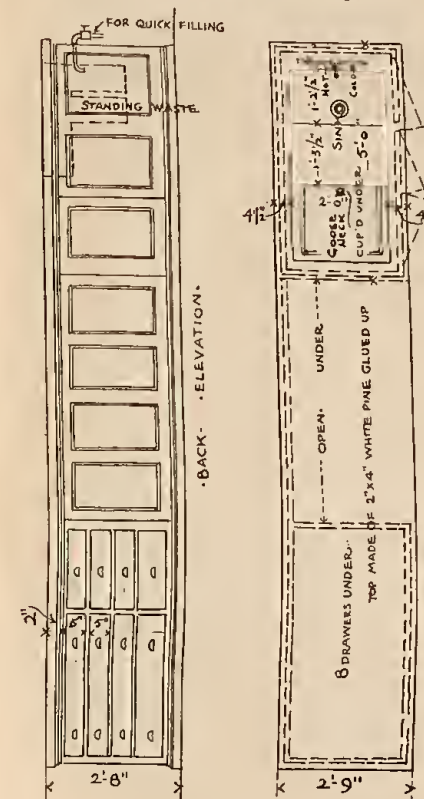


## LABORATORY.

# CITY OF BOSTON.

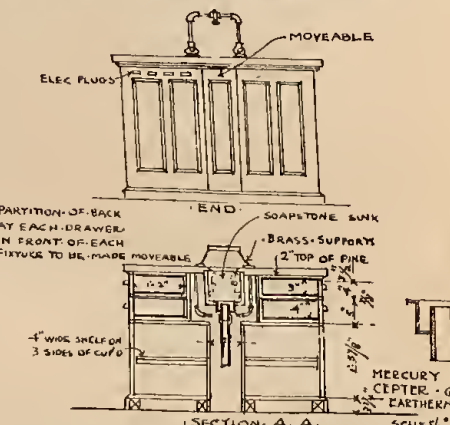
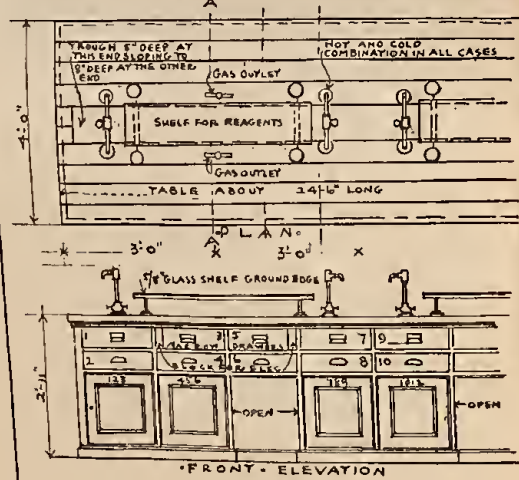
# SCHOOLHOUSE DEPARTMENT.

## DEMONSTRATION TABLE.



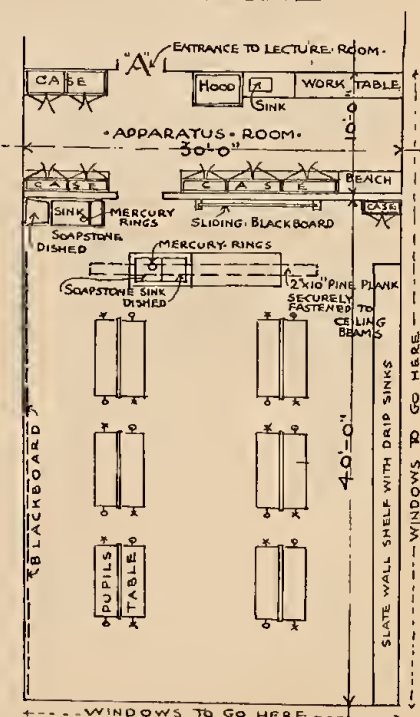
## LECTURE ROOM.

## PUPILS TABLE.



## CHEMICAL LABORATORY.

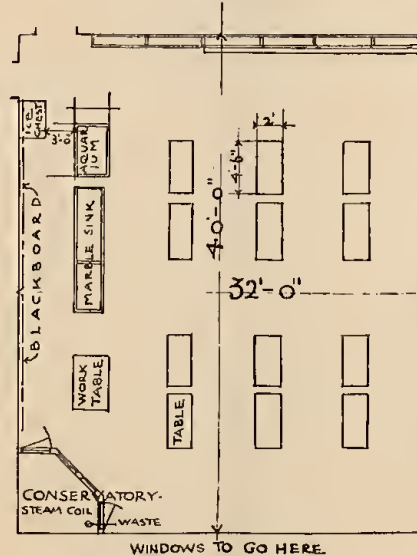
## PHYSICAL.



## LABORATORY.

## BOTANICAL.

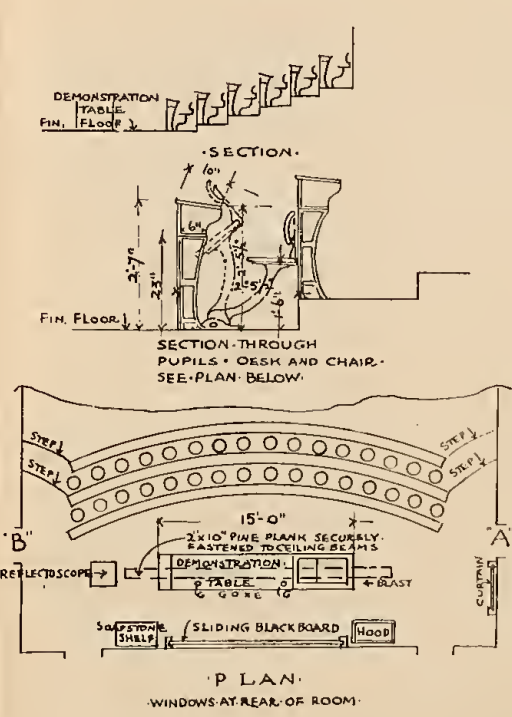
## AND ZOOLOGICAL.



## LABORATORY.

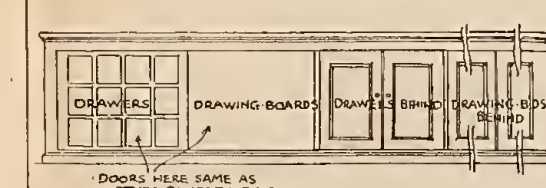
## SOUTH EXPOSURE.

## LECTURE.

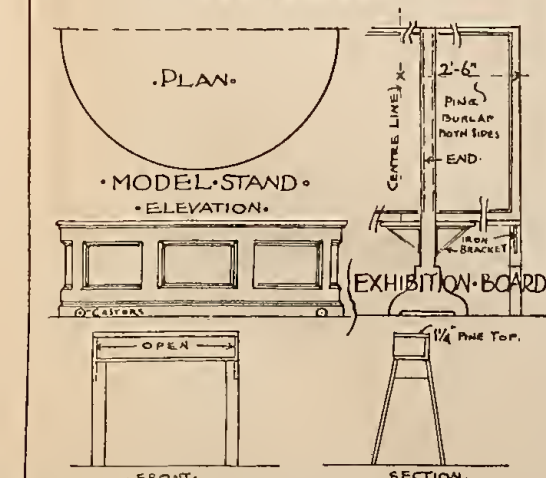


## ROOM.

## DRAWING ROOM.



## CASE FOR DRAWING BOARDS.



## PUPILS TABLE.

0 5 10 15 20 25 30 FT  
SCALE OF PLANS

0 5 10 FT  
SCALE OF DETAILS



· H I H ·

CHIEF

5766.5750D2















AUG 20 1919

